The Trip of a Lifetime: A Pictorial Diary of My Journey Out West By Jonathan G. Way

www.EasternCoyoteResearch.com & www.MyYellowstoneExperience.org



E-book

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- In a '*Pay It Forward*' type of way, I ask that you consider donating \$10 (or more), the price of this book, if you read this book for free and enjoyed it. After all, you now own over 500 pages and almost 1,000 pictures of some of North America's finest treasures for less than the cost of a night at the movies. Thanks in advance.
- Citation:
 - Way, J.G. 2020. E-book (2021, revised). The Trip of a Lifetime: A Pictorial Diary of My Journey Out West. Eastern Coyote/Coywolf Research, Barnstable, Massachusetts. 561 pages. Open Access URL: <u>http://www.easterncoyoteresearch.com/TheTripOfALifetime/</u>.
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- Previous books by Jonathan Way:
 - Way, J. G. 2007 (2014, revised edition). Suburban Howls: Tracking the Eastern Coyote in Urban Massachusetts. Dog Ear Publishing, Indianapolis, Indiana, USA. 340 pages.
 - Way, J. G. 2013. My Yellowstone Experience: A Photographic and Informative Journey to a Week in the Great Park. Eastern Coyote Research, Cape Cod, Massachusetts. 152 pages. URL: <u>http://www.myyellowstoneexperience.org/bookproject/</u>
 - Way, J. G. 2020. E-book (Revised, 2021). Northeastern U.S. National Parks: What Is and What Could Be. Eastern Coyote/Coywolf Research, Barnstable, Massachusetts. 268 pages. Open Access URL: <u>http://www.easterncoyoteresearch.com/NortheasternUSNationalParks/</u>

Pay it Forward

Dear Reader,

I wrote this as an e-book to maximize the book's exposure as much as possible. There are some amazing natural treasure's in our backyard here in America and I hope that this tome clearly articulates that. To increase access for all people, rich or poor, majority or minority, I am offering it for free to anyone in the world who wants to read it.

This 550+ page book is the result of a dream 3.5 week trip I took out west during summer 2019. I visited dozens of parks, protected areas, and national forests/grasslands to produce this pictorial journey, including 995 images, which describes my adventure in a unique, very visual way. It is intended to be an easy, relatively quick read given the number of pictures of our great country and some of its best natural features. This book is unique in the annals of adventure books and western national park reads in that I provide a journalistic flair to the text and offer insights into my observations, yet provide abundant, maybe even overwhelming, visual documentation. The importance of our national parks is clearly evident to make this book possible, especially the pictures. The case is made to expand the existing national park system to include more large natural areas throughout the country that 'preserve resources unimpaired for future generations' so additional people can have similar experiences to the ones that I had.

If you enjoy this e-book, all I ask in return is that you *pay it forward* by sharing and please consider a donation of \$10.00 to support my research and education efforts, as well as supporting the book's Open Access format. That is about the price of one movie ticket and you get to own this book, and all of its pictures, forever.

I may occasionally update the text – an advantage of e-books – so feel free to visit the webpage and see when the latest version appeared. If you do not want to donate from <u>my website</u>, you are welcome to email me and I can provide you with a physical address: <u>jon@easterncoyoteresearch.com</u> or <u>easterncoyoteresearch@yahoo.com</u>.

Thanks in advance!

Jon Way

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Preface and Acknowledgements

This book is the result of a dream 24 day trip I took from June 18 to July 11, 2019. I traveled 7,601.4 miles through 17 states including, in order of first entering each state, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Ohio, Indiana, Wisconsin, Minnesota, South Dakota, Wyoming, Montana, Colorado, Nebraska, and Iowa. I visited over a dozen parks (mostly national, but including 2 state parks, 2 national monuments, and 1 "reserve" that is park-like) and many national forests. I took over 3,000 pictures, many video-clips, and amassed 42 pages of journal notes to be able to tell this story. My mother, Robin Way, provided vital editorial work and constructive criticism to make it a readable work, and friend and frequent Yellowstone travel companion, Steve Cifuni, offered many good suggestions on an earlier draft.

I have been fortunate to have traveled out West many times previously, which gave me a good basis for writing this book. In the summer of 1992, while I was in high school, my family and I traveled out West in a van and pop-up camper. We spent about 4.5 weeks exploring everywhere from Rocky Mountain National Park to the desert southwest parks (Zion, Mesa Verde, Grand Canyon) and all the way to Yellowstone. That trip got me hooked on the West and nature in general. I will forever appreciate my parents (and brother and sister) for this experience. In June 2001, my sister Nicole and I drove out West, stopping for a few days to do a backpacking trip in the Boundary Waters Canoe Area Wilderness of Northern Minnesota before heading to Glacier and Yellowstone National Parks. It was a remarkable 3 week trip. In total, I have been to Yellowstone 21 times now and have even written a book "<u>My Yellowstone Experience</u>" based on these expeditions. Additionally, I revisited Grand Canyon National Park with family members, including my young son, in 2009. A trip with Steve to the northwestern national parks of Olympic, Mount Rainier, and North Cascades in Washington state rounds out the majority of my western park experiences.

Two things precipitated this cross country trip: 1) Steve frequently mentioned to me that I had to go to the South Dakota parks, telling me "they are beautiful and easy to do many in a relatively short amount of time"; and 2) I had just finished a couple of years bouncing from job to job and having finished my most recent employment in that sequence – teaching high school – I wasn't sure if I would get this amount of free time again. So, I made an itinerary of places to visit and concluded that would take me a few weeks to complete. I quickly realized that driving would be the most economical option.

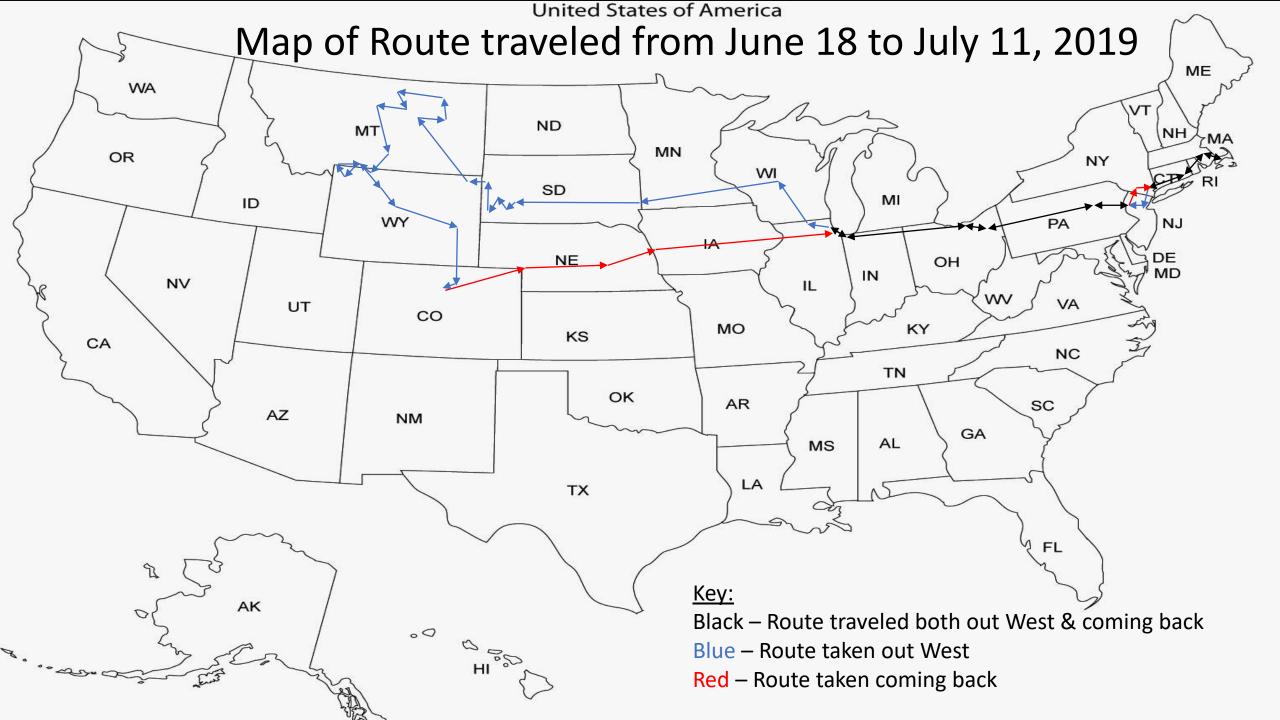
I decided to make this journey on my own as dogs are not allowed to hike on most trails in the national parks, my son did not want to go for that long, and most of my adult friends worked full time. Additionally, I knew that this would be an exhilarating but exhausting trip and most people probably wouldn't be able to keep the pace that I was going to maintain.

To stay in order of the trip, including the places I visited and things I saw along the way, each chapter represents the consecutive day of travel (1-24) with the heart of the action taking place after the third day and before day 22 when I was 'Out West' in a given park. Please do not be intimidated by the length of the book – there are many, many pictures to enjoy so it is a relatively quick read! It is intended to be a pictorial journey of our great country and some of its best natural features.

E-books also allow for embedding hyper-links right into the text, which are obviously not available in a traditional print book. These websites provide useful additional reading opportunities relevant to each section where they appear.

I am hoping that this pictorial journal is unique in the annals of adventure books and western national park reads in that I provide a journalistic flair to the text and offer insights into my observations, yet provide abundant, maybe even overwhelming, visual documentation. An advantage of an e-book is that I do not have the page constraints of a color book, which are often expensive to print; therefore, I offer almost 1,000 images with pictures documenting all aspects of my expedition. That being said, please come along with me on this amazing odyssey and enjoy the many animals, plants, and spectacular scenery that I witnessed along the way.

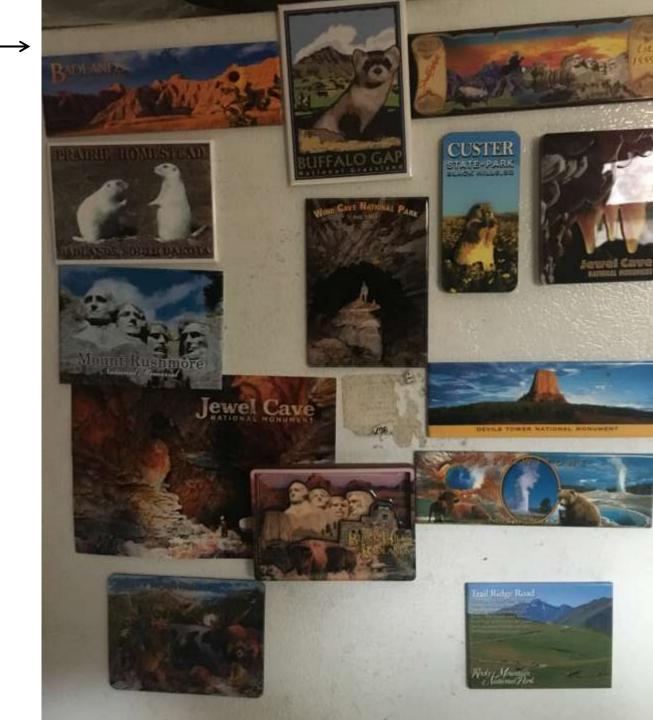




Magnetic evidence of the trip \longrightarrow

Deer on side of road $\$





Day 1: The Journey Begins

The first day, June 18, 2019, of the trip started in bizarre fashion. I packed my car then left my home in the town of Barnstable on Cape Cod, Massachusetts and drove off-Cape to Buzzards Bay where I testified in front of MassWildlife about banning contest hunting. Yes, it is 2019 and citizens have to actually pressure state wildlife officials to ban contest hunting for coyotes and other carnivores. From 7:00-9:00pm, all but 3 of the 40+ presenters testified – most did so irately – about the inhumaneness of these contests. I was one of them. (In December 2019, MassWildlife did finally ban contest hunting for all furbearing species; they also established a wanton waste clause meaning you have to kill an animal like a coyote for a reason; and they also made hunters report a coyote or fox kill within 48 hours, the same for bear and deer).

I left the hearing at 9:15pm to start my journey, driving most of the way through heavy rain, to the point of getting nervous during part of the drive as it was raining so hard. My goal was to get past New York City at night, when there would theoretically be less traffic, and into New Jersey. The rain made it difficult to accomplish that hope.

Luckily, I plodded on and managed to drive from my home state through Rhode Island, Connecticut, and southern New York (NY City). At nearly 1:00am the drive was exacerbated with an almost 1 hour traffic jam on the George Washington Bridge in the Bronx, New York. I had worked nearby at the Bronx Zoo for 7 months in 2000-2001 and knew the area well. The irony of being in this concrete jungle didn't escape me knowing where I would soon be for the next 3 weeks.

Once I got through that annoyance I managed to drive, in total exhaustion, all the way to central New Jersey where I pulled over after 2:00am and found a quiet parking lot off the main highway (Route 80) where I could finally sleep in the car, two hours into technically the second day of my trip. Very close to the parking lot, a white-tailed deer stood on the side of the road watching me drive by. It was my first large animal sighting of the journey! Never mind that deer are exceedingly common in New Jersey, I was officially on my way out West! And however exhausting tonight was, I managed to get about 300 miles closer to the western national parks.

Day 2: No Rest for the Weary

Considering that Day 1 ended over 2 hours into Day 2, 6:45am came very quickly on June 19, 2019. Given it was my first night and I was pulled over in a random parking lot, albeit a quiet one, it was hard to get a deep sleep. But the adrenaline that I had helped fuel my start to the day. I knew it was going to be a long one as I hoped to get to the Indiana/Chicago area by dusk.

Hopping back on Interstate 80, I managed to only drive about 45 minutes when I pulled off the highway at the western edge of New Jersey. I saw signs for the Delaware Water Gap National Recreation Area and thought it would be a cool first non-gas or rest stop.



I found a perfect parking lot that I could have slept in – if I only had known last night. It led me along the Mt. Tammany trail system. I ended up hiking about 1 mile along the crystal clear water of Dunnfield Creek. Arriving back to the car at 8:10am, I grabbed a couple of poptarts for a quick breakfast and then jumped back on the highway.



I knew today was going to be a lengthy day as Pennsylvania is one of the longer states in the East. But it is also a beautiful state. They even have a wild elk population. Unfortunately, I drove right through that area and only managed to see a couple of solo deer in fields and a half dozen road-killed deer as I cruised along Route 80 West.

After 311 miles in PA, I entered Ohio. I drove straight through that state too, going another 237+ miles on the Interstate, stopping only for gas and to use the restroom. I learned that Ohio was the cheapest state along the route to purchase gas.

I was surprised by the relative lack of wildlife that I saw in those two states. I managed to only see a road-killed porcupine in addition to the deer. Those two states are known to have a lot of deer in addition to the normal eastern fauna including wild turkeys, foxes, coyotes, and black bears.



Entering Indiana at ~6:00pm was a different story. I saw dozens of deer including about 20 single deer in various fields along with way as well as a group of 10-12 with some definite antlers which was impressive since it was mid-June and deer don't start growing them until the spring. I have always loved wildlife and seeing these deer gave me comfort and familiarity during the long, tedious drive. It also helped pass the time, as I would anticipate when and where I would make my next sighting.

Another group of 3 deer rounded out my sightings before I arrived at Indiana Dunes National Park at 7:40pm well before dusk in this farthest place west in Eastern Time Zone. I managed to drive around the eastern half of the park and did a couple of quick hikes around Mt. Baldy and the wetlands of Beverly Drive before it got dark. I managed to see 2 separate deer along this short drive and got great pics of a doe in a marsh (below). I also drove by a park campground which was full, looked in the closed Great Lakes Science Center, and found the visitor center.

It had been a long day and considering that I drove 760 miles, I was tired. I managed to find a nearby parking lot to hunker down in for the night at the edge of the park boundary. It was around 10pm and I was amazed how late it got dark out there.

I had always loved camping, and fully expected to tent most of this trip. However, being alone, I quickly realized how much easier it was to just sleep in the car. Despite not being as comfortable, especially with the steering wheel in the way, I could literally wake up, throw on my sneakers, and start driving. So that is what I started doing and it made huge dividends for me in saving time but also giving me a chance to get some much needed shut eye.

One of the many deer that I saw in Indiana



Sand dune covering live trees.

Indiana Dunes National Park (~15,000 acres) was redesignated as a national park in February 2019 so many of the signs still reflect its former National Lakeshore status.

> National Park Service U.S. Department of the Interior

Indiana Dunes National Lakeshore



Coming from an ocean environment – and living 30 miles from Cape Cod National Seashore – it was unique to see sand dunes along the coast of freshwater such as these beaches along Lake Michigan within Indiana Dunes National Park.





Day 3: The Marathon Day – Reaching South Dakota

I slept a bit better in the car on June 20th as I reached a point of exhaustion from the previous 36 hours. There was a lot of rain overnight which made me feel even more justified in my selection of "vehicle camping". I woke up at 4:45am but discovered that the western region of the park was actually on Central Time, so that bumped my wake up time to 5:45am. I managed to find a couple of short hikes in the area, saw 2 raccoons near the Dunes Learning Center, and drove around the remainder of the small national park. I was antsy to start driving further west so only stayed in the area for about an hour more.

I really wanted a magnet of the park, but the visitor center wasn't scheduled to open for a couple more hours. Magnets are my desired tourist gift from each place I visit. I have way too many T-shirts and clothes already so a little token of each park I visit permanently sits on my refrigerator, a reminder of all of the amazing places that I have visited. It is also a perfect memento to give to friends and family.

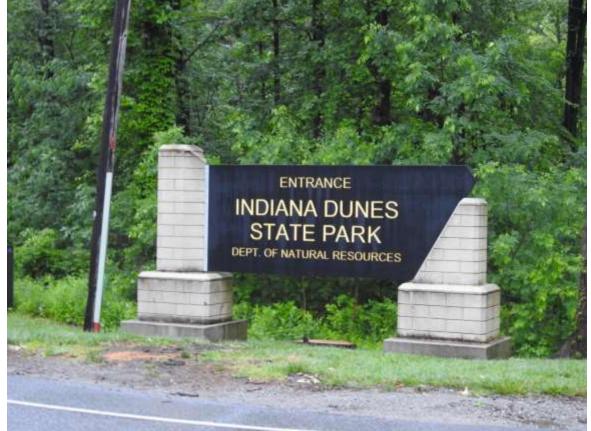


Indiana Dunes Visitor Center



A quick stop at Indiana Dunes State Park, checking out the wetlands in the national park (bottom), and getting one more view of Lake Michigan were part of my dawn explorations before I continued west.







I knew I had my work cut out to try and get to South Dakota by the end of the day but that was my goal. Unfortunately, the day started out slowly as my explorations in Indiana Dunes National Park at dawn delayed my drive by 1.5 hours and that was costly in the form of Chicago traffic.

Not only was there congestion in Chicago but there was a bunch more rain. I was literally following the rain from the East coast to the Midwest as the forecast predicted. It was not easy driving.

In Chicago, I left Interstate 80 West and got onto 90 West which veered northwest into southcentral Wisconsin. I would be on this road all the way to South Dakota. I had my work cut out to get there by nightfall.

Storm clouds were common for most of my way out west, with occasional clearing to partly cloudy skies.



80 MPH speed limits will let you get from Point A to B rather quickly.



By the time I got to Wisconsin, it was daytime (10:30am) and it cleared up and became sunny so most wildlife was bedded down. Instead of seeing live animals, the highway told me what was common in the area: deer! I saw 20-25 dead deer ranging from freshly killed to decomposed. Some were even flattened. I also managed to see a couple of canids but I was driving too fast (75mph) to tell if they were coyotes or foxes. I also saw another dead porcupine and 2 dead badgers. Road-kill gives one an accurate index to common animals living in an area.

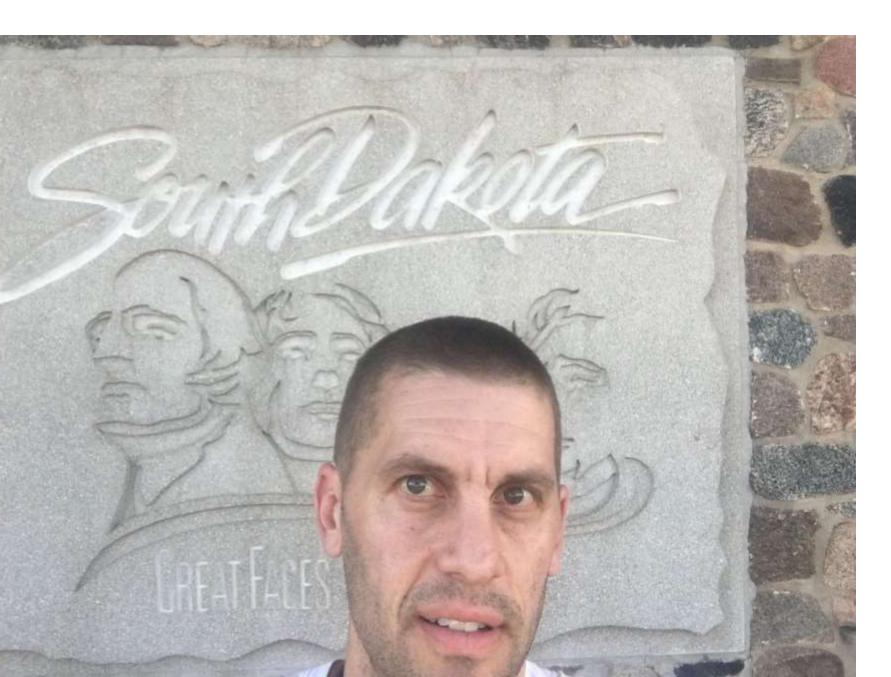
After driving about 80 miles further, Route 90 veered west in southcentral Wisconsin then into Southern Minnesota after another 100+ miles. Minnesota is another deceptively long state. By the afternoon, I was anxious to reach South Dakota but it seemed to take forever. Route 90 is 275 miles long in Minnesota so it dragged on and on especially considering I only saw 2-3 dead deer through that entire area – much less than in Wisconsin. There wasn't a lot to see on the way.

I entered South Dakota via Sioux Falls around dinnertime after going 260.2 straight miles from getting gas in Albert Lea, MN to stopping in Sioux Falls. I also quickly learned that, in addition to Ohio, gas in Minnesota was some of the cheapest around.

Once I got into South Dakota I relaxed, knowing that I was approaching my destination for the night. I managed to find a couple of radio-stations that broadcasted the NBA draft. Basketball has always been my favorite sport and I have watched all of the player drafts since I can remember. Interestingly, I still recollect – way back in high school – seeing the 1992 NBA draft in which Shaq was drafted #1. My family and I stayed at my Aunt Jill and Cousin Scott's house in New Jersey to get a leg up on our cross country trip. Scott and I stayed up late that night watching the Celtics draft Darren Morningstar, who claimed he would be the next Celtics great. That never panned out, and we still joke about that to this day.

Driving west in South Dakota, I managed to listen to most of the first round of the draft. I was on cloud nine knowing that I was in South Dakota less than 48 hours after leaving my home in Massachusetts. It had been a surreal start to the trip thinking of all the places where I had been, rounding out the list at 9:50pm Mountain Time when I pulled into the rest area at Chamberlain, SD in the central part of the state. I was able to explore Indiana Dunes National Park and drive through Indiana, Illinois, Wisconsin, Minnesota, and half of South Dakota, going 773 miles!

It was a good day. After snapping a few pictures of the rest area, I retired to my car, comforted knowing that other people were here doing the same thing. The buzz of trucks keeping their engines on soon became background noise and I was able to fall asleep around 10:30pm.



Arriving in South Dakota



Below: Mile 263 Rest Area in Chamberlain, South Dakota where I spent the night. The 'Dignity Of Earth and Sky' statue is a beautiful symbol of peace overlooking the Missouri River. This location was a part of Lewis and Clark's 1804 Expedition.



LEWIS AND CLARK BICENTENNIAL 1804-2004

This Corps of Discovery II marker commemorates the bicentennial of the Lewis and Clark expedition. The geographic position of this marker has been established using the satellite-based Global Positioning System. This marker is part of the National Spatial Reference System, which is the standard used for positioning, mapping, and navigation in the United States. The position of this marker is at Latitude 43 degrees 47 minutes 13.66 seconds North and Longitude 99 degrees 20 minutes 18.16 seconds West. The elevation of the marker is 1718 feet above mean sea level. This marker was set in cooperation with the South Dakota Society of Professional Land Surveyors, South Dakota Department of Transportation, and National Geodetic Survey.

Day 4: Buffalo Gap National Grasslands & The Badlands

Considering that I was on my third night of the trip, I thought I would sleep like a baby going into the first day of summer, June 21st, as my body needed more rest. I tried to spend the night on the bed of my truck in my sleeping bag and mat to get the fresh air of the Great Plains. The night was cool and I quickly ignored the sound of truck engines running through the night to power their generators, effectively blocking out the outside world for them. However, at 12:30am it started raining yet again and that forced me back into my truck where I slept until about 6:15am Mountain Time.





I only had a 120 mile drive to get to Buffalo Gap National Grassland. It would be my first time in a national grassland, which are treated similar to national forests in that they allow multiple uses like hunting and cattle grazing (and logging in forests). It is a good balance especially when near a national park which is fully protected from resource extraction. Because it was early and I only had a 2 hour trip to get there, I explored a few tourists stops including Al's Oasis, a well known diner, and an authentic 1880 Town. Satisfied with a brief glimpse of South Dakota, I headed to Buffalo Gap National Grassland. It was exhilarating to be starting my third full day and to now be in completely new country, with literally every mile driven and each step walked being new terrain for me.





The 1880 Town looks like a quaint village from the outside.





Signs for Wall Drug in Wall, SD, are everywhere on the drive.



After the tourist stops, I got back on the highway (90W) and headed straight to Buffalo Gap National Grassland, arriving there at 8:30am. Signs of Wall Drug were seemingly every mile on the way. Wall is a town in SD and their drug store is famous. I would visit it later in my travels.

One of my first observations of the national grassland was how much it looked like ranchland, albeit a little more wild. There would be a ranch here and there mixed right in with the prairie. Essentially there was some development, but the grassland status preserved more land and kept it looking natural, except for the bison that are no longer there and the cattle that are.

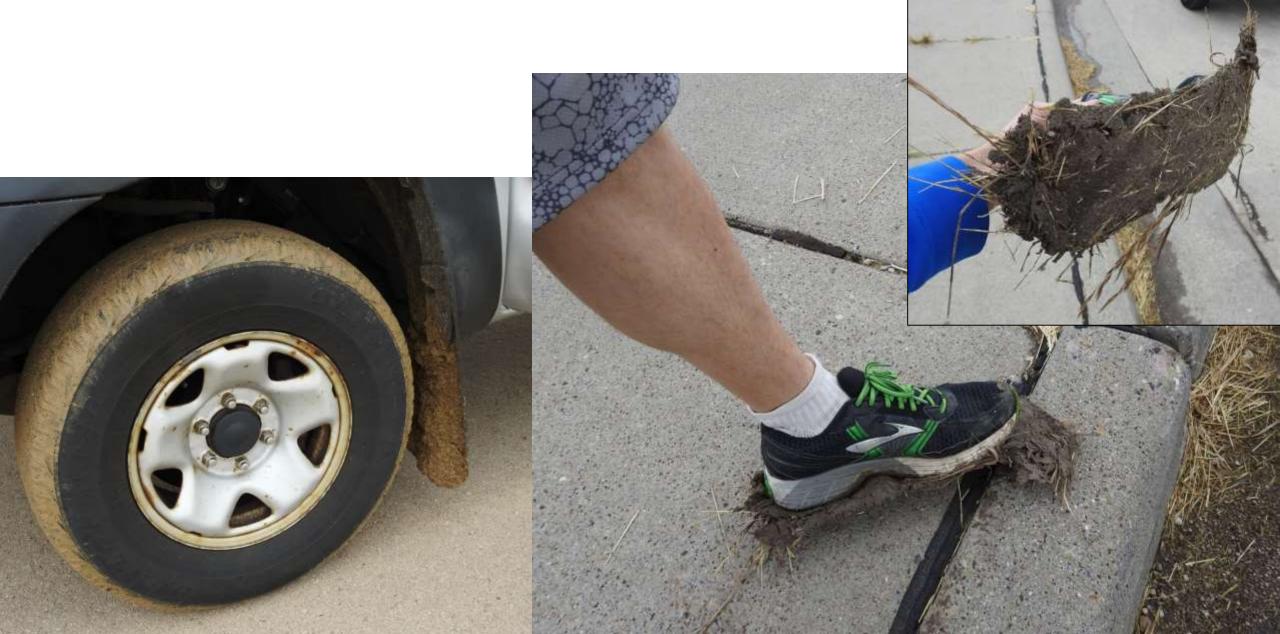
I was very fortunate to see pronghorn on the very first stretch of road (Route 73 North) of the eastern part of the grassland. I also got on Route 9 North but that road quickly turned to dirt which became very messy since it had recently rained. When the ground gets wet and muddy after rain on the prairie, a sticky clay called "Gumbo" forms. It clumps and sticks to your car tires and your shoes if you walk on it. It has the consistency of concrete that makes it unbearable to walk on when it dries.

Looking west of dirt road Route 73 to Buffalo Gap National Grassland

Pronghorn standing in prairie in Buffalo Gap National Grassland. Pronghorn are not true antelopes even though they are often called that. Its Latin name, Antilocapra *americana,* means "American goat-antelope," but it is not a member of the goat or the antelope family and it is not related to the antelopes found in Africa. The pronghorn is the only surviving member of the Antilocapridae family and it has been in North America for over a million years!



Gumbo galore. It is amazing how sticky the wet clay is after it rains.



In between the national grassland and Badlands National Park is Minuteman Missile National Historic Site, which highlights efforts during the Cold War period (1960s-1990s) to hide nuclear missiles in silos and barns of the Great Plains. They were to be ready at a moment's notice to be launched toward the Soviet Union. Interestingly, I went to UMass Amherst for undergraduate school. The mascot for the university is the Minuteman, which represents a member of the 1770s colonial militia trained to respond in a minute's notice of an attack during the American Revolution, similar to what this National Historic Site represented.





After visiting the historic site and the national grasslands, I headed toward Badlands National Park via Route 240. Being an early riser has its advantages. It was only 9:30am, and I was already heading to my third destination of the day. On the way, there is a well known Ranch Store that has its very own prairie dog town and because people feed them, they are quite tame. It was my first wild prairie dog town that I had seen and was really cool. (Yellowstone has an abundance of ground squirrels but no prairie dogs.)







People feed the prairie dogs peanuts!

After visiting the Ranch Store and the nearby Prairie Homestead, a small town with a museum, I drove to the Badlands. Seeing the Badlands in the distance was like the 'Night Before Christmas' for me. I was brimming with excitement and could see the eroded spirals from a distance over prairie and agricultural fields.

I entered the park after purchasing the \$80 Annual National Parks (NP) Pass which would be good until the end of June 2020. It is quite a deal as each park's weekly entrance fee is \$25-35 which means that the pass would be paid for by visiting 3 national parks. But there are other federal lands, like national forests, that also charge a use fee so the pass is quite a deal. (I would go on to use it in Acadia NP and Katahdin Woods & Water National Monument in Maine and Everglades NP in South Florida, among other places.) When I enter a park that I am first visiting, I often get mixed feelings. I am super amped up about having the opportunity to explore the new park, but I am also nervous as I have about 48 hours (2 nights and 3 days) at most places to learn where to go, explore all of the sights of interest, find a place to stay for the night, and look for wildlife. Usually by the end of a visit I am pretty adept at navigating the park but it takes time and the effort to do that often involves a great deal of anxiety, as well as excitement.

MERICA THE BEAUTIFU

ENTERING BADLANDS NATIONAL PARK

THE HAA PLAX WE A PRIMI A PUBLICAN WORK INCOME.





By 10:30am I had already entered the park and stopped at a couple of overlooks realizing that Big Badlands Overlook, in the park's Northeast corner, was a spectacular place to have breakfast.

I typically fast for ~16 hours a day (as well as do 1-2 monthly 40 hour fasts) so mid-morning is often when I eat. Boiling hot water for oatmeal and hot chocolate was going to be a staple for my breakfasts. Adding a banana to the mix was perfect for health (potassium) as well as taste!

I had stuffed 40 packets of oatmeal in a large tote storage box, and a pile of other non-perishable staple foods including pasta, peanut butter and jelly, and many snack items like cookies, granola, and bars. I packed enough grub to last me over 3 weeks. I wanted to minimize the inconvenience of having to stop during the trip.

Driving to and then hiking the Door and Window Trails.



Call Strain



After breakfast, I hiked the Badlands Door Trail. The formation of badlands is a result of two processes: <u>deposition</u> and <u>erosion</u>. Deposition describes the building up of layers of mineral material. Different environments such as seas, rivers, or tropical zones, deposit different sorts of clays, silts, and sand. This process took millions of years, resulting in clear, distinct layers of sediments and many fossils. After the deposition occurs, the area then erodes slowly over millions of years. The resulting Badlands is a testament to these two forces, and the different types of sediments (clays) and colors visible make the Badlands appear unique.



Kind of like the geothermal features (geysers, hot springs, mud pots) of Yellowstone, which I describe at length in my book <u>My Yellowstone Experience</u>, Badlands are a sort of out of this world type of place where you feel like you are walking through an alternate universe reminiscent of the moon or some far off place.

Hiking the Notch Trail – and all of the trails in the park – was very special. This particular area was so steep a ladder was needed to continue on the trail.

OTCH TRAIL

Hiking the Notch Trail

Yellow sweet clover in a "super bloom". I thought the fields of this plant were beautiful until I was informed by a ranger that they were non-native to the area as they are a European plant.

Reaching the top of the ladder on the Notch Trail. Amazing scenery awaited.

Badlands and yellow sweet clover.

The Ben Reifel Visitor Center has a treasure trove of information and very helpful rangers on hand to explore the park's geological and natural resources. There is also the nearby Cedar Pass Campground, located in the open prairie with the beautiful Badlands in the distance. I visited these areas after I took the aforementioned hikes.







There are many layers of sediments and rocks in the Badlands which took millions of years to form.



A close-up of the different layers of sediment that formed the Badlands.

As breathtaking as visiting a national park is, it is just as exhausting. By the middle of the afternoon, after hiking and stopping at nearly every pull-out to get pictures, I arrived in the Conata Basin. Conata was actually out of the park and back in Buffalo Gap National Grassland which surrounds the park. It is a recovery area for the black-footed ferret, and its major food source – prairie dogs – are protected too.

UAS

ENTERING

BADLANDS NATIONAL PARK

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ATTENTION S

BLACK-FOOTED FERRET MANAGEMENT AREA The Forest Service is managing the endangered black-footed ferret. in this area. Pursuant to the Endangered Species Act, the Forest Service is prohibiting prairie dog hunting/shooting in this area. Please contact the Forest Service office in Wall for further information (605) 279-2125.

PRAIRIE DOG HUNTING / SHOOTING PROHIBITED

At 5pm, a highlight of an already amazing day was seeing a herd of 10 bighorn sheep in the central part of the park west of Burns Basin Overlook. Bighorns are more of a mountainous species so you don't think of them on the plains, but they were actually in predictable places as the steep terrain of the Badlands is great habitat. They would leave the protective topography and come near the road to graze on grass, then soon return back to the badland formations. The group caused a traffic jam for 10 minutes but this was a much more preferred road stoppage compared to the New York City traffic I experienced 2 days earlier. This is a classic picture of bighorn ewes and their lambs of the year up in the protective region of the Badlands with the plains below them that they rarely ventured into. The National Park (NP) Service restored bighorns to the park in the 1960s and there are now over 250 in the park. Many of them wear radio-collars so their movements can be studied.

Seeing cattle grazing on Conata Road just outside of Badlands NP and inside Buffalo Gap National Grasslands was definitely not a highlight of the day. Sadly, bison are not given priority even in federally managed areas like the national grasslands. At least the native prairie dogs were protected, as they are treated like pests and shot for fun in many western states.







Beautiful fields of yellow sweet clover cover much of the national grassland where pronghorn, a species of the open plains and the second fastest land animal in the world after the cheetah, graze. Sadly, this painted turtle was hit by a car on the dirt road, yet was still alive when I found her. There wasn't much I could do except move her viable eggs to the side of the road and bury them.

Badlands NP is a very long and linear park that is ~244,000 acres, with the vast majority of visitors going to the 110,000 acres of the North Unit of the park. Thus it is easy to leave the park, like when I drove the Conata Road into the national grasslands, and then quickly return to the national park.

As I re-entered the park at around 6:30pm, I remembered that I hadn't eaten dinner nor figured out where I was going to stay for the night. I was going 110% and food was not my primary motivation at the moment. So, coming around the corner of the park road at Ancient Hunters Overlook and then reaching Pinnacles Overlook, the sight before me was bittersweet: Bighorns in and around the road and nearby bluffs. I couldn't pass up more great pictures of bighorn, but it was getting later and darker by the minute. However, I was so close to these animals and I wasn't sure if I would get the chance to see them like this again as there were 25 bighorns spread out around those two pullouts!



This picture provides a great perspective of where bighorns live in the Badlands.

Bighorn sheep nursery group of lambs inhabiting steep terrain to avoid coyotes and mountain lions, their main predators.

Another good perspective picture showing the road and people watching bighorns on the hills to the right. That gate-like structure in the front is a cattle guard and that is what keeps bison out of certain places including the eastern part of the park as well as preventing them from leaving the national park.

After the remarkable sighting of those bighorns, I left the populated eastern part of the park at 7:10pm and headed west on Sage Creek Rim Road into the 64,000 acre Badlands Wilderness Area. I was excited to get here as this is where the 1,200 bison live in the park (see the previous page with the cattle guard keeping them out of other sections of the park). It is a remote area with sporadic Badlands and more hilly, grassy terrain that suit the bison well. It immediately frustrated me that bison didn't inhabit the great prairies at the eastern end of the park but I soon learned that the park service was finishing up a two year project of adjusting the park fences to allow the bison to expand their range for the first time in decades. The entire park is fenced in so only leaping ungulates like deer can get out which prevent cattle from coming in and bison from leaving. (In October 2019, this project was completed and bison now roam 22,000 more acres into the eastern region of the North Unit of the park).



My first sighting of bison living wild on the Great Plains! That black-tailed prairie dog called to its neighbors warning about the large visitors that were nearby.

About 5 miles into Sage Creek Rim Road, I stopped at Roberts Prairie Dog Town and made a simple meal of Spaghetti Os and Little Debbie Nutty Buddy bars. When camping and living in your car, the simplest meals often taste the best. This was definitely the case tonight and it was the first time that I had spent any time at a wild prairie dog town which was a very special, and peaceful, experience.



Prairie dog town at dusk.



At 8:10pm, as I was cleaning up dinner items, and dusk and the mosquitoes were quickly settling in, I heard a lone howl to the southwest into the Badlands. Given the barriers of the steep bluffs, I thought that this animal would be difficult, if not impossible, to find. However, moments later another coyote responded to the northwest of me, by the park boundary. The prairie dogs were actually more focused on me, given how close I was, compared to their primary predators who were communicating in the distance. After a couple of minutes of scanning I find that coyote off in the distance traveling southwest where I soon lose it behind a rolling hill. It was now 8:30pm and I was elated to be part of this original wild west show, but I also knew that I had to keep driving west, to get to where I was going to spend the night. On the way, I manage to see a white-tailed deer doe cross the road from the prairie north of the road and into the rolling hills of the Badlands to the south. I also experienced my first sighting of a burrowing owl, who live in prairie dog burrows. What an amazing little owl of the plains!





I arrived at the Sage Creek Campground at 9pm, just past dark. It was a primitive campground and was free! There were a good amount of cars and tents at this first come first serve site which was simply an oval road about a quarter mile long. After the past 3 days of seemingly going non-stop, I was exhausted. I decided, like the previous night at the Chamberlain, South Dakota rest stop, to put my sleeping bag and pad in the back of my truck bed and sleep outside under the stars.

Initially, it was a fantastic idea as shortly after, at 9:10pm, there were multiple coyote howls from all over the campground. The first howler was up the hill to the west but then other sounds came from the northeast and east of me, then back and forth between all of those locations, echoing off the hills which amplified the sound. It was unbelievable. The campground was silent, with everyone just listening to nature's chorus. I fell asleep outside, cocooned in my sleeping bag as temperatures dropped into the 40s at night. What a day!

However, yet another drizzle a couple of hours later caused me to go back inside my truck where I remained until the morning. Many cars drove by until around midnight which was frustrating as most of us were trying to sleep. The predictable noises of people walking around their car and setting up tent sites began once the cars stopped. They shined flashlights in the process and weren't quiet in doing so. Being back in my car somewhat buffered me from these late-night disturbances yet it was still aggravating until finally around midnight it all stopped and the campground became quiet for good.

Sage Creek Campground



Day 5: Exploring Badlands National Park

I knew that I was going to be tired after four straight days of activity, so not surprisingly 4:30am came quickly on June 22, 2019. I have always been an early riser which is great in the summer as the early birds in an area, often the ubiquitous American robin, tell me when dawn is about a half hour away with their melodious calls. At home I almost always wake up and take my dog out to run in local conservation areas. But I find that when I am traveling it is even easier for me to rise early because I am so excited to start a new day. Most of you are probably thinking that is the opposite of what a normal people does when on vacation, but I am not most people. For me, being on some type of expedition is what I live for.

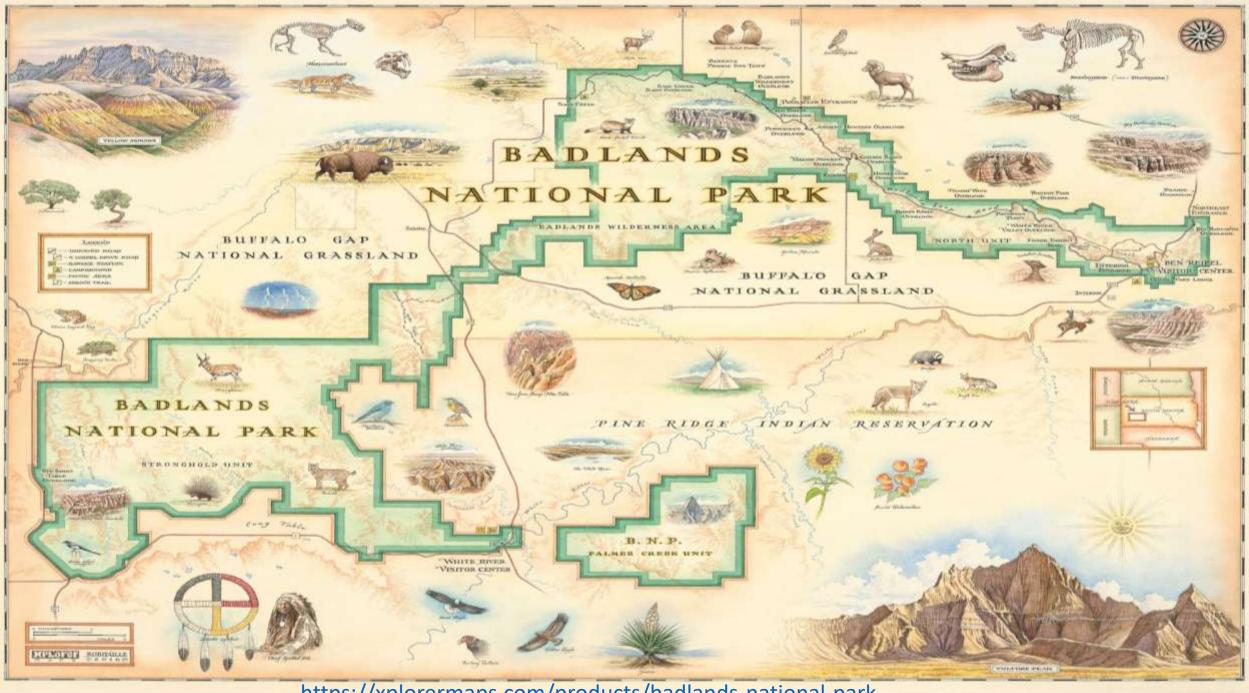
Once I fully woke up, I left the site at first light at 4:55am excited to explore more of the Badlands. I drove to the northwestern boundary of the park and saw yet another cattle/bison guard keeping those bovines on their respective sides. It was actually depressing to see so many fences, so much so that I wrote park managers on my return home. I learned that even though this park was nearly a quarter million acres, the surrounding country was not as wild as some of the more wilderness parks out west, like Yellowstone and Glacier.



Map of the Badlands and surrounding areas. The North Unit of Badlands National Park was between Scenic and Interior, SD. It is by far the most heavily used part of the park.



NORTH DAKOTA



https://xplorermaps.com/products/badlands-national-park

After seeing all those fences, I went back into the core of the park and took a hike in the Badlands Wilderness Area. It was a special experience. I climbed these spectacular clay mounds (see below). Using a pair of good binoculars, I could see bison off in the distance. It is amazing how quickly one's personal outlook improves after being in a national park, realizing that Americans did something right by protecting these special areas.



Coyote track (left), bison scat (middle), raccoon track (right), and beautiful scenery (below) in Badlands Wilderness Area

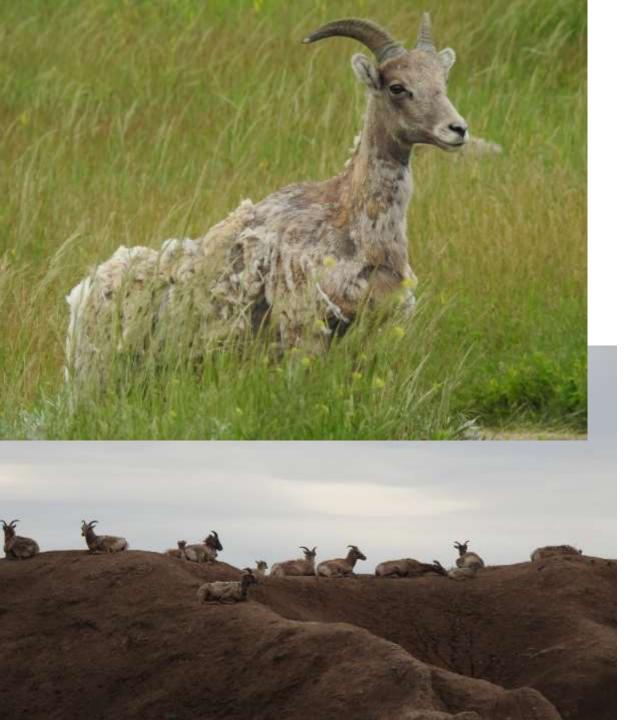


Returning back to the east on the Sage Creek Rim (dirt) Road, these bison were rubbing on the fence posts at Roberts Prairie Dog Town, where I had dinner the previous night. Bison really are remarkable animals. Bison and my pickup truck parked at Roberts Prairie Dog Town at dawn. As I continued on my drive eastward I spotted pronghorns traveling east in the open prairies at the north edge of the wilderness area. Zooming in with my camera, I realized that fawns were traveling with the adult females. They continued heading in the same direction that I was.

Pronghorns and perspective on the grasslands at the northern part of the Badlands Wilderness Area.



Arriving back to the main park loop road and Pinnacles Overlook, I realized that yesterday's sightings of bighorns was not a fluke as I quickly saw many all around the pullout and on the nearby badlands. In fact, I saw 25 up on the ledges (see picture below), 4 more on the distant hill beyond them, and 24 more right at the overlook parking lot foraging on grass (next page).





After the tremendous sighting of over 50 bighorn sheep, I made breakfast at that same parking lot overlooking the beautiful badlands. As I boiled water, another light rain arrived. I thought to myself that this was unbelievable. It had literally rained every day of my trip so far. I was like a mobile cloud and rain seemed to fall whereever I was. However, living in the wild like this, at about day 5 one starts to ignore minor inconveniences and instead focuses on all of the positives like the amazing wildlife sightings taking place.

After breakfast, I left the park at 9am and took Route 240 15 miles North to Wall, SD. There I visited Wall Drug, something I had to do after continuing to see all of the billboards off the highways. I was able to also visit Buffalo Gap National Grasslands Visitor Center which had some pretty cool exhibits. Being a minimalist and rarely buying extra products, I was less impressed with Wall Drug other than the sheer size of the place.







After visiting the sites in Wall, I filled up my gas tank. The first 2 full days involved me gassing up multiple times a day to power the >1,500 miles I had driven. It was nice to have gone two days between fill-ups as I was now staying relatively local for a couple of days.

The drive to and from the park to Wall involved mostly driving through the national grasslands since it surrounds the national park. After being gone for only 3 hours, it was nice to arrive back into the park around noon. I felt back at home, and decided that, since I would be leaving tomorrow, I needed to find a good hike to do.



Returning to Badlands National Park, I drove back to the eastern side of the park. The scenery really is stunning there.



On my drive to the hiking trails, I saw my first mule deer of the trip. It was a nice looking doe. Mule deer are closely related to white-tailed deer and are in the same genus (*Odocoileus*) yet differ from them by having a rope-like tail, are generally bigger, and live in more open terrain. This doe is feeding in a super-bloom of yellow sweet clover.





At 2pm, I arrived at the Fossil Exhibit Trail sort of by accident. I actually meant to go further east and hike from the Saddle Pass Trail, which would have made it a shorter hike. Because of my mistake, I ended up hiking 7.5 to 8 miles from Castle Trail to Medicine Root and all the way to Old Northeast Road. It was a great hike, despite the hot sun in the middle of the afternoon. The numerous cacti plants verified that this is a hot, dry, desert ecosystem.





Tremendous views from the Castle (top) and Medicine Root Trails (bottom) with many cacti in bloom.





The area had a lot of hard packed clay and I saw many ungulate tracks cemented into it which could have been mule deer, pronghorn, or less likely because of the flat terrain, bighorn sheep.

CASTLE TRAIL



At 4:10pm, I returned back to the car and chugged water under the hot sun. I didn't bring any with me as I was only expecting to do 5 miles instead of 8. I was parched but was able to do the entire hike (with some jogging) in about 2 hours. I decided to head further east and returned to the Visitor Center. There, I watched the 20 minute film again (mainly to get some rest) and talked to the ranger on duty about bison and elk. That is when I learned that bison would soon be expanding their range in the park and that there weren't any elk living there. The ranger also explained that mountain lions are seen in the park, but rarely. I could have asked him questions all day but there was a line behind me and I felt fortunate to have my most important thoughts answered.

After I finished at the visitor center, I headed back to the west at 5:45pm. My plan was to have dinner on the road and then get back to the Sage Creek Campground around dark. I wasn't too concerned about time since I now knew where I was going. Despite having driven through there 3 times by that point, I noticed many more prairie dog towns. They were all over the flat, open prairies of places like Burns Basin Overlook. They were so much fun to watch romping around. It was at this point of the trip that I began to realize just how fond I became of these "whistle pigs".

BURNS BASIN OVERLOOK

It wasn't until 7:10pm, after watching the prairie dogs, that I arrived at Conata Picnic area to have dinner. It was a slight detour off the main park road but there were more beautiful sights and a cool cliff swallow (below) colony burrowing into the walls of the Badlands. At the end of the short, dead end road of the picnic area was a sign for Deer Haven, a special ungulate wintering area in the backcountry. If I needed a reason to return here, this was it!





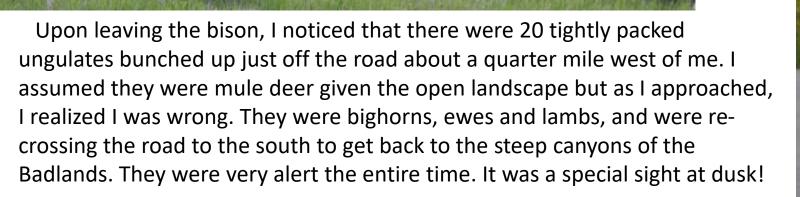
Across the street from the picnic area was a sign about the rich fossil life in the Badlands. It was amazing to think of the nimravid (cat-like predator), bear dogs, horses, and rhinoceros that used to live here millions of years ago!



After leaving the picnic area at around 7:45pm, I headed back to Sage Creek Rim Road. At 8:20pm, I got into my first 'bison jam' of the trip. Nine bulls were on the road temporarily blocking traffic. Going at their own pace, they slowly meandered south and across the road. *Spoiler alert*: with my trip to include visiting Wind Cave National Park, Custer State Park, American Prairie Reserve, and Yellowstone, this would not be my last bison jam of the trip. And that was a good thing!







As darkness was approaching, I saw a group of 6 bison in the prairie to the north and then 15 bison on my way past Roberts Prairie Dog Town. I noticed that I was mostly seeing bull bison at the north part of the park. I reasoned that the cows and calves must have been spending time elsewhere, no doubt further south in the Badlands Wilderness Area. At 8:50pm, as the last light hit the region, I saw a few more small groups of bison, then drove to the Sage Creek Basin Overlook in the central part of the wilderness.

I was still wired and wasn't ready to head back to the campground just yet. It was calm and still at Sage Creek Basin Overlook. The dew of the grass gave off a nice fresh smell. There were 3 cars parked there and I knew that they were backpackers because I saw tents about a half mile out in the wilderness earlier in the day. I just sat there and listened with my car windows open, hoping that I would hear the chorus of coyotes again. It was so peaceful and there was nobody around.

That was the case until 9:16pm when a guy came in with a little pop-up camper and backed into the small dirt parking area. He parked there and didn't turn his car off for 40 minutes. I start mumbling bad words out loud in frustration to this disturbance of my tranquility.

At 9:56pm I became fed up and left for the campground. Arriving there about 20 minutes later I saw that at least 50 cars were in that small area. I drove to the same northwest corner of the parking lot as the previous night.

At 10:30pm, just as I got tucked in my sleeping bag in the driver's side of my truck, with my windows open to cool the car, I heard more coyote howling to the northwest. It was just like the previous night but it was not as close this time, maybe a half mile away. But still a special way to finish the day, and my last night in the Badlands.

Given my local driving in and around the park on June 22, I drove by far the least of the trip so far, managing to only cover 103 miles. Tomorrow was going to be a busy day as I planned on leaving the park and moving on to a new destination, so I knew I better get some rest ASAP.



Day 6: Leaving the Badlands and on to the Black Hills

Morning arrived quickly on June 23 given my late arrival to the campground. I was surprised that I woke up so easily to the melody of the birds at 4:35am and then, shortly after, to someone turning their car on. By 4:50am, I had already used the outhouse, packed up the car, and left the campground heading back east on Sage Creek Rim (dirt) Road over the South Fork River, a body of water that is solid gray in color due to the clay sediment in the water. I wanted to do one last tour of the Wilderness Area and to Pinnacles Overlook to see 'my' bighorn. First, I stopped at the Sage Creek Basin Overlook at first light and, using my spotting scope, saw bison in the distance. These were the first cow/calf groups that I saw and I knew it would only get better as it got lighter.



The same three cars that were in the lot remained at Sage Creek Basin Overlook. The car that disturbed me last night was already gone. That didn't disappoint me given that I was going to be here for a while and didn't need someone running their car for another 40 minutes. From 5:25 to 6:55am, I scanned for bison. As it got lighter, I saw more and more of them. The view was commanding as I could scan for miles upon miles into the Badlands Wilderness. At first I saw about 100 cows and calves south to southwest of the Overlook. But then I found more to my east and another herd to the SW, producing about 300 bison!

Bison are migratory mammals and are seemingly always on the move, aside from some large bulls that like to camp out in certain areas. These animals proved no different even though they only had a modest 60,000 acres to roam in the park (In October, that number would go to over 80,000). To control bison in this park and the next few that I was going to visit, I learned that the agencies have bison round-ups in the fall and either give them to Native American Reservations or other source populations, sell them to private breeders, or slaughter them. This is done to keep bison at population objectives in a given park.

The closest bison were about a half mile away and were moving northeast to the southeast and were behind a big badland among the rolling hills. Interestingly, one of the camping groups, consisting of 12-15 people, was just in front of that geologic

structure but didn't seem to notice or hear the herd. Spotting scopes are amazing in what they allow one to see. The animals were literal dots on the landscape and I was watching individual animals leading the herd, trailing the group, and bison calves chasing each other. It was pure nature, exactly what a national park should be like! I scanned over to the people and noticed an adult in the group go around a bend and relieve himself in the morning. While he successfully avoided his party from seeing him, he couldn't escape my scope's view from nearly a mile away!

At 6:50am, I became anxious to move on as I wanted to leave the park by midmorning. I still had to drive east to look for the bighorns one last time. As I recounted all of the bison I saw, I realized that I had seen more like 400 of the giant, shaggy beasts. It was difficult to leave this viewpoint with animals in view.





















Bison in the distance and campers in the foreground. The bison herd eventually moved closer to the people but stayed on the far side of that bluff effectively blocking them from the people.

A closer view of the bison

Bison bulls often grazed close to the road.

On the way to Pinnacles Overlook, I took one more look at the prairie dog colony at Roberts Prairie Dog Town and noticed that some areas had grass that was much taller than where they were. I wondered if they had to eat all of that vegetation before they could expand their towns range to include more land.



My last trip to Pinnacle Overlook was not a disappointment. Bighorn sheep were literally all over the nearby bluffs. From 7:15-7:30am, I got a quick count of 18 relaxing. They probably had just foraged while I was watching the bison and now were ready for a siesta.





From 8:00-8:45am, I stopped at Badlands Wilderness Overlook and made my most sophisticated meal of the trip: pancakes and eggs. Camp stoves are amazing but they actually function at high heat so one is prone to burn food if not careful.

While I don't think they were the best pancakes in the world, I was so hungry I quickly devoured a half dozen banana chocolate chip pancakes as well as 2 eggs which I brought from my chickens back home. A quick ~1,000 calories. I needed it as I had been running ragged for 5 days now.



My last stop in the beautiful Badlands Wilderness Area. It was a perfect final view of the landscape as I planned on driving as directly as I could past the Sage Creek Campground so I could leave the North Unit of the Park.

As I left, I knew that I needed to return to this area in the very near future. It was a fantastic place!

It was amazing how much I saw in the 48 hours I was here! By the way, that saying was going to be a theme for the remainder of the trip as I visited all subsequent parks and crammed in a week's worth of activities in 2-3 days.



I took Route 590 to 44 then to 589/27 in order to head southwest to the Stronghold Unit of Badlands National Park. This unit was a section of the park in the Pine Ridge Indian Reservation, which is co-managed with the Oglala Lakota. I went back through the national grassland to get there, and helped some disoriented bikers get to where they needed to go at the junction of Route 44W. My only wildlife sightings on the way were of a white-tailed deer doe on the side of Sage Creek Road and many mourning doves on fence posts, both of which are familiar sights back east.





I then drove through the mostly abandoned town of Scenic, SD (pop. of 50) and was soon back in the national park.



There was another herd of bison off Route 589/27 near Sheep Mountain Table. This area was right at the edge of the national grassland, the national park, and the Pine Ridge Indian Reservation. The bison were fenced in and were clearly ranch bison, similar to cattle but more hardy and able to live with less management like wild bison.

The area they lived in was much smaller than a wild bison population would use. However, even in an enclosed area bison do much less damage to a pasture than cattle do. They have evolved to graze here and there and move on. On the other hand, cattle often camp in a specific area – like a stream – and eat everything in sight. This creates overgrazing which damages pastures.



Not really knowing what I was getting myself into, I took a right off Route 589/27 South and took Sheep Mountain Table Road. It turned out to be a most spectacular road requiring 4WD to navigate the bumpy, dirt terrain. I even saw my first sagebrush of the trip. It is a plant that I am fond of in Yellowstone as it provides the best fragrance; a sharp, spicy smell that is instantly recognizable. The first 4 miles of the drive were relatively graded and doable with most cars. The last 3-4 miles required clearance and thankfully my 2008 Toyota Tacoma provided that.





At 6-7 miles I reached a deep muddy puddle and was not planning on going any further as it seemed like the trail effectively ended there. But then a family of 4 from Wisconsin drove by and found an alternate way. They were in a small car with low clearance. I was so focused on my situation being nearly stuck in the middle of nowhere, I never processed the model of their car but remember it was Accord or Camry sized.

I was astonished that they were continuing on. Granted they had a good map of the area but nevertheless it was really rough traveling. It was more like a beach buggy trail in a lot of the areas and there was a surprising amount of sand with beach plum bushes near the edge of the road. These are characteristics I am used to on coastal, sandy Cape Cod, MA and was quite surprised to find them there in southwest South Dakota!



I talked briefly to the family and decided to follow them. It was bumpy and rough going for a while and felt that the road kept going and going. But eventually we reached the top of the mountain with spectacular views. It was also quiet to say the least. Besides our 2 cars, there was nobody here. There was a small, grassy plain about quarter mile wide where we parked. It was surrounded by Badlands on all sides. It was truly amazing!





View of the Badlands atop Sheep Mountain Table Road. It was truly a spectacular area!





Mule deer tracks, including those of fawns, were common at the top of the mountain and I spied this doe on my drive back down. While I didn't see any tracks, it looked like perfect mountain lion habitat. Southwestern South Dakota is the eastern-most range of an established cougar population in the west.









On the way down the mountain I was able to get pictures of sagebrush, just beginning to flower. The bottom of the road, near Route 589/27, was very arid with many cool rock projects. It was literally a different ecosystem from the top of the mountain a few miles away. My first live badger of the trip made its appearance at the base of one of these clay mounds at 11:52am in the middle of the day with a scorching sun. I waited a couple of minutes for it to peep its head back out of its den, before I continued on. Oddly, as I was about to get on the main road, a Jeep Cherokee with Massachusetts plates flew by me, dust kicking as the vehicle passed.



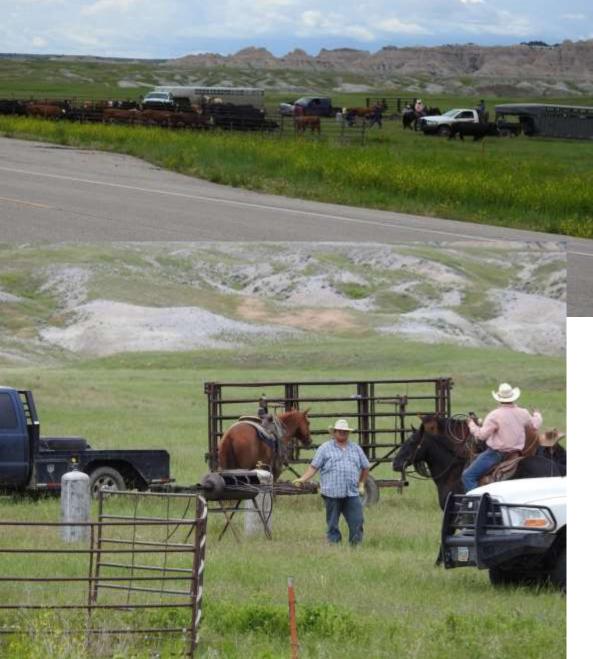
After finishing that adventure up Sheep Mtn Table Road, I drove through the Pine Ridge Indian Reservation to the White River Visitor Center. It was a very small place, and way off the beaten path. It was encouraging to see the Native presence both on the park sign itself, as well as the park personnel which included both whites as well as Native Americans.

At 1:30pm, I ate my usual meal of 1.5 peanut butter and jelly sandwiches, pretzels, and two side snacks; this time consisting of a Little Debbie Nutty Buddy and a pudding. I then started to drive west taking Route 2W to 41N past Red Shirt, SD, to 40N which took me past Hermosa, SD. To be consistent with everyday up until now, it rained. At times it came down hard. In fact just after leaving the Badlands, it rained most of the way from Red Shirt Table Road to the Mt. Rushmore/Custer State Park area.



White River Visitor Center

The last of the Badlands included a cattle drive (most of the ranchers appeared to be Native Americans) and a view from Red Shirt Table Overlook. I then drove west to my next destination.





I must have brought the rain with me from the east as there was lots of rain the first week of the trip. However, the parts of the day that were sunny lifted my spirits so that the rain never dampened them. These views are from Red Shirt, SD, within the Pine Ridge Indian Reservation. Driving to a new park was also regenerating to the spirit. I was excited to be now going to Mount Rushmore, to see the

carved statues of four famous presidents.



You have to drive through the northeastern part of Custer State Park to get to Mount Rushmore. I managed to see a bison on that drive before continuing northwest on Iron Mountain Road (16A). Only frequent downpours slowed me down.





Driving through the rain on 40W, I managed to see 2 mule deer in a field and then a white-tailed deer doe crossing the highway itself! After crossing over Route 79 to 36W, it cleared up which was perfect because I was approaching Mount Rushmore, my next destination. I was excited for the next couple of days because there were lots of natural features clustered near each other. For example, just to get to Mount Rushmore National Memorial, I had to drive through sections of Custer State Park and Black Hills National Forest.

Route 36W led to Iron Mountain Road (16A) which is one of the most spectacular feats of engineering imaginable, especially considering that it was constructed in 1933. It is famous for its scenic, one-lane tunnels (3 of them) which provide unobstructed views of the presidents. Every trip along this road provided different viewpoints of the monument. It was amazing!

My only complaint was the frequent rain showers that came through on and off all afternoon. It would get really dark and then clear up after a few minutes of booming thunder and precipitation. I noted in my journal after the third downpour on Iron Mountain Road alone, "There is too much rain on this trip! It has rained every day so far."

During one of the storms, I pulled over and took a great 20 minute power nap at Iron Mountain Road Visitor Center and Store. As often as time would allow, I would try and take these brief daily rests which gave me energy to continue the breakneck pace I was maintaining.

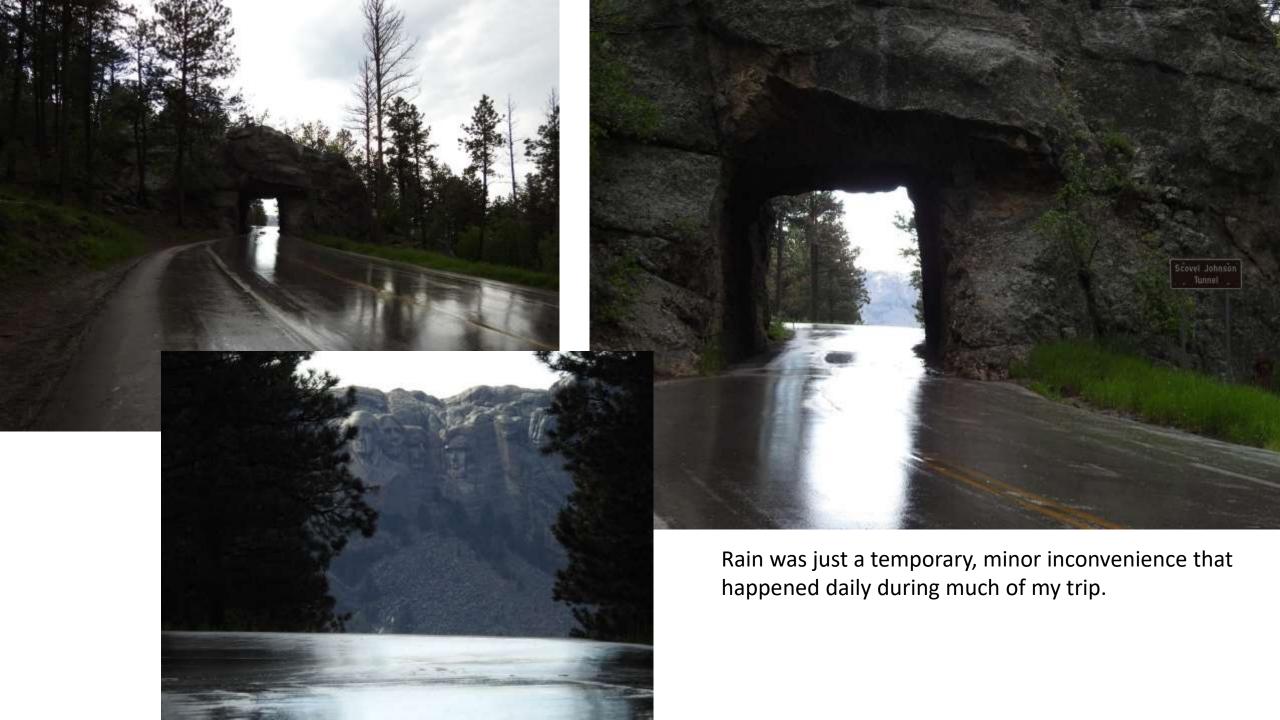


Mount Rushmore viewed from the Doane Robinson tunnel. The Presidents (from left to right) are George Washington, Thomas Jefferson, Theodore Roosevelt, and Abraham Lincoln. Roosevelt is one of my favorites given all he did to support conservation in the U.S., including establishing and expanding many national parks.

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Views from Iron Mountain Road including a double tunnel (lower left) and Ponderosa pine forests.



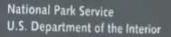
Black Hills National Forest is huge. At 1.25 million acres, it surrounded all of the other natural features that I planned on visiting during the next few days including Custer State Park, Mount Rushmore National Memorial, Wind Cave National Park, Jewel Cave National Monument, and the towns of Custer and Deadwood.

BLACK HILLS National Forest



Spiral twists on Iron Mountain Road lead to Mount Rushmore. It is remarkable to think of the designers of this road constructing it 87 years ago.

I entered Mount Rushmore at 5:45pm after paying my \$10 parking fee as my annual federal lands pass did not cover this attraction. But it was good for a calendar year.

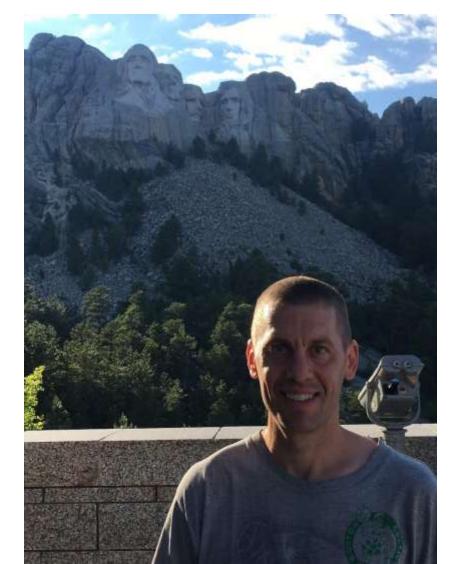


Mount Rushmore National Memorial



I am not a super patriotic person, even though I love my country. Yet, it was an overwhelming feeling when I first entered the 'Avenue of Flags' and saw the 4 famous presidents perched above them.

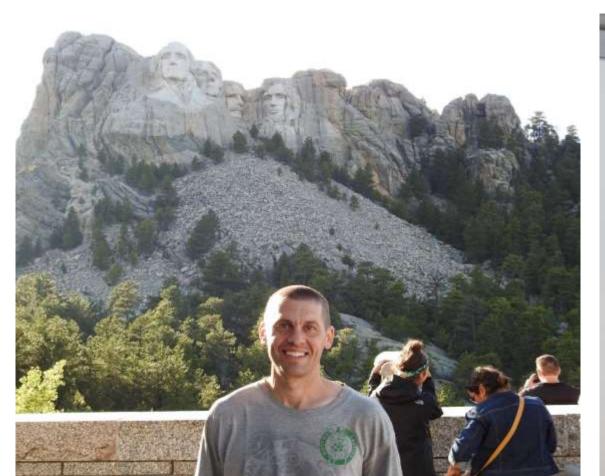
There were a lot of people at the Grand View Terrace, the main observation area. So I toured the area, never staying in one place long and naturally taking many pictures including the obligatory 'selfie' with the presidents. Hiking the half mile Presidents Trail (a loop) put me back in my element after experiencing the crowds of people. Due to the sheer number of tourists, I decided to head back to the car in the parking garage and have dinner, ironically in the least scenic place of my trip so far. However, the speed of eating in the car out-weighed any thought of bringing my food to a bench overlooking Mt. Rushmore.



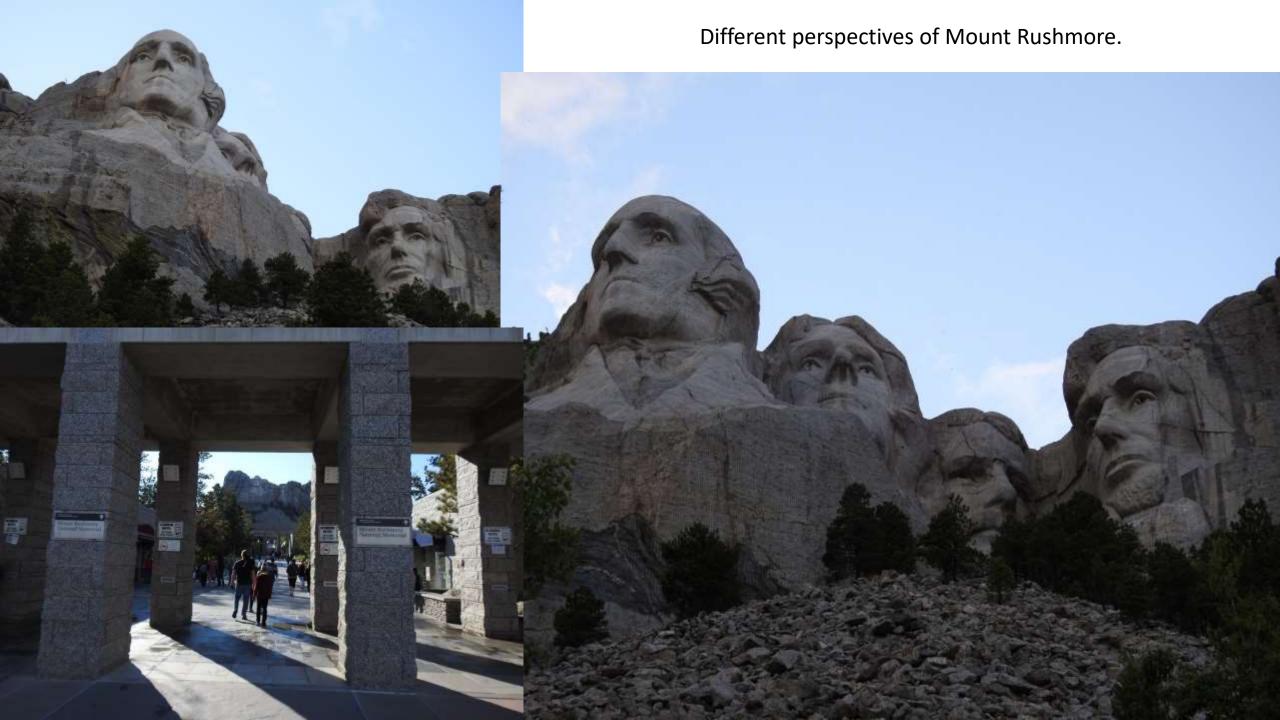


A sophisticated dinner of tuna, my first meat of the trip, immediately raised my energy levels for the rest of the night. I do not eat much meat in general and do not eat mammals (cow, lamb, pig) so this dinner was actually a nice change of pace over the many bowls of pasta and other similar carbs. Eggs from the 5 chickens that we raise provides most of my "animal" protein.

The visitor center immediately captured my attention as there was a mountain lion – one of my all-time favorite animals – perched above the ranger's desk. This cougar was illegally killed within the confines of the 1,300 acre (about 2 square mile) site. I learned at the information booth that there was a night show that began right at dark. So, I revised my departure time to later and checked my email and Facebook on the park store's Wi-Fi to kill time. As dusk approached, I then went back to the crowd of people just in time for the show.











Veterans folding the flag, before the lights were turned on, during the Evening Lighting Ceremony.



Mount Rushmore at night during the light show. It was even more spectacular in person as the presidents' faces really shined and stood out in the darkness. It was truly a great last perspective of Mount Rushmore at dark with the presidents' faces lit up on the mountainside. I had such a special time there, I decided that I was going to head back to the park in the morning to get a perspective of the area at dawn. There would be different lighting conditions as the sun would be facing the mountain which would likely provide a good setting for pictures.

I left Mount Rushmore around 10pm and decided that I would find a quiet place off Iron Mountain Road to spend the night. I didn't want to bother anyone at a nearby campground so I followed 16A to the South and found a quiet picnic area that had a large tractor parked there. The driveway went about a quarter mile off the road. It was quiet and dark there, and the location would set me up to drive back to the north and go through the 3 tunnels on Iron Mountain Road at dawn. So at 10:35 pm, and 198 miles later on this day, I set out my gear in the back of my truck bed and quickly fell asleep, tucked comfortably in my sleeping bag.

Day 7: Oh Deer, An American Experience

The night got cool, down to about 40 degrees, and I had a hard time getting out of my sleeping bag at 4:50am on June 24 even though I had already heard the melodic robins calling all around me. Despite being in the bed of my truck, I sensed that I was being watched. Sure enough, once I raised my body, I immediately saw 3 white-tailed deer grazing between the parking lot and a small pond only about 100 feet away. They moved west toward the picnic tables chowing down on grass as they went. At 5:10am, I finally got up and out of the truck, disturbing 4 adult and 9 juvenile Canada geese just to my east. The deer were now more to the west yet still 'flagged' away as I walked to the outhouse. White-tails often raise their beautiful namesake butts when disturbed to signal danger to nearby deer as they hightail it out of an area, in this case up into a forested ridge.



White-tailed deer flagging while others stand alert scanning for danger.





I pulled out of the picnic area and decided to take a scenic drive on Iron Mountain Road south which took me back into Custer State Park before I turned around and headed back to the north. I was stunned how many deer I saw on the way. After seeing those 3 on the driveway, I quickly saw 9 more: 4 down in the river valley about a quarter mile from that driveway, 1 more about 50 meters to their west which was a buck, and 4 others who flagged off to the southwest as I started heading south on Rt. 16A. I wasn't totally sure if the first group of 4 were the original 3 that I saw as I woke up this morning. Within a quarter mile of leaving that picnic area, and seeing those 9 deer, I saw 4 more females and yearlings, then a doe and yearling followed by a beautiful group of 8 bucks and does, all within a half mile. All of these animals were in savannahlike grasslands interspersed with trees, and were grazing on the lush late spring grasses laced in morning dew.





Savannah-like habitat where these 8 white-tails were observed foraging at dawn.



After seeing those 8 bucks and does, pictured on previous pages, I saw 2 then 3 more white-tails. I kept writing in my journal, "Unbelievable!", after all of these sightings. I was up to 30 deer already and had driven only a couple of miles. I then saw 9 deer and all were pretty small, under 75 pounds by my estimation, in a field right by a RV Campground and a few stores. Deer were everywhere! Two were fawns and the others looked like young does or yearlings.



After passing the group of 9 deer I saw groups of 3, 2, then 2 more before entering the now familiar cattle guard that keep the 1,350 bison on the Custer State Park side. I am still amazed that these grated areas keep bison confined to one side. I will explain more on this later as this would not be my last time in Custer. It was only 5:56am when I entered Custer State Park's Northeast corner. I had already seen 46 deer and was astonished by the abundance of this common ungulate. The range (grass) looked good. It didn't appear to be overgrazed or damaged by the deer.

In Custer I drove just the 5 miles of the park to Route 36, then turned around and headed back to the north on Iron Mountain Road. I was ready to go back to Mount Rushmore. I managed to see 10 more white-tailed deer (in groups of 2, 3, 1, 1, 1, and 2) and a lone bull bison. All were grazing. On my way back out of the park I saw more deer in groups of 3 and 2 who appeared to be new ones not seen earlier given their location compared to the others. After leaving Custer, I saw 6 of the deer cross the road near the campground. They must have stashed the 2 fawns nearby, possibly in the tall grass. I then saw ~10 of the deer that I saw at first light. I was in a rush so hurried through previously driven areas.



On my way up Iron Mountain Road (16A), I saw small groups of 2, 3, 1, 1, then 2 deer on the side of the road but was more focused on the road's twists, turns, and spirals (see below). I also saw 3 marmots between the first and second tunnel. The animals quickly scurried off and I wasn't too concerned about not obtaining pictures of them because I have observed plenty of them in Yellowstone National Park previously, and figured I'd see more during the trip.

As I drove through Iron Mountain Picnic Area, I managed to see 10 more deer including the 5 on the previous page giving me a grand total amount of about 80 deer spotted this morning. All were white-tails. I reasoned that I would start seeing more of their close relatives, mule deer, when I went further west and got into more open, arid climates. Western South Dakota is the region of overlap between western and eastern species.

I really enjoyed driving Route 16A on this morning as I was able to anticipate the drive having done it – mostly in the rain – yesterday. I judged that the view from the third (last) tunnel, called the Doane Robinson Tunnel, was the best view of the 4 presidents from anywhere including from the Memorial itself.



THE PIGTAIL BRIDGES

In 1932. Cecil Clyde Gideon forged ahead with the design of the Pigtail Bridges when many felt it could not be done. C.C., as he was called, was a pioneer in the Black Hills, making his mark as a master builder, architect, craftsman, lawman, and highway designer.

Riding horseback from his home at the Game Lodge. Gideon and Senator Norbeck spent long hours laying out the Iron Mountain Road, the tunnels that frame Mount Rushmore and these bridges.

Norbeck wanted a rustic look but the elevation drop presented complex engineering problems. These bridge surfaces are neither straight, level nor flat and rustic log work has great variation in quality. Logs were selected from nearby, cut to fit, seasoned, then put in place.

With the completion of the bridges more scenic beauty of the Black Hills became available for all people to enjoy. C.C. Gideon turned vision into reality.

> ERECTED IN 1991 BY THE GIDEON FAMILY. THE SOUTH DAKOTA STATE HISTORICAL SOCIETY AND THE SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION.



Last view of the presidents from Iron Mountain Road.

One-lane section of the road near the picnic area.





I visited Mount Rushmore from 7:30-9:45am, and was really happy I decided to go back to this most American experience! The morning was crisp but clear, and the clouds slowly disappearing to make room for more and more jet blue skies as the morning wore on. I was hoping that I might get a respite from the rain today.

Since I was at the Memorial the day before, I planned on taking less pictures and do more enjoying by looking around, hiking the Presidential Trail again, and buying some magnets of the park. Not only do I like to get magnets of the parks that I visit but they are also a great souvenirs for friends and family back home. One picture on a refrigerator can often spark many conversations about that magnet's location.

It was well worth traveling back to Mount Rushmore National Memorial on the morning of June 24. The light was excellent providing an extraordinary view of the 4 presidents at their finest. There were a lot fewer people at Mount Rushmore in the morning as evidenced from Grand View Terrace. This yellow-bellied marmot seemed to agree, making an appearance right near the overlook.









A last, and most outstanding, view of (left to right) George Washington, Thomas Jefferson, Theodore Roosevelt, and Abraham Lincoln with a close-up of Washington below. View of me on the Presidential Trail directly below the presidents. This was the closest you could get to them. The profile view of Washington was outside of the Memorial as I drove west. I left Mount Rushmore and was driving west by 10am. I was very happy with the progress I was making. It was Day 7 and I had already driven out west and also visited the Badlands, Mount Rushmore, parts of the Black Hills, and Custer State Park. I was ready for my next destination: Wind Cave National Park.

To get there, I drove through the familiar confines of Black Hills National Forest, albeit a new section of it as I took Routes 244W to 385S through the town of Custer and then eventually to Wind Cave NP which is on the south side of 71,000 acre Custer State Park. I had basically just done a 2 hour counterclockwise loop to get here but, given the mountains and all of the sites so close to each other, there was no quicker way to go.



The Black Hills are very savannah-like in many of the areas, not just where I saw the deer in the morning. There is a lot of grass with Ponderosa Pines mixed in. The pines are very dark, hence their moniker black hills. It is actually a translation from a Lakota word as early humans also noticed how dark these trees were from a distance. This area is an isolated mountain range rising from the Great Plains of where I had just come from and lead into Wyoming, where I would be heading next.

Along the way I chose not to do many "tourist" stops so drove by the Crazy Horse Memorial on 385. My only two stops were to visit the ranger station in the Black Hills and to get gas in the town of Custer.

It worked out well as I arrived in Wind Cave NP at 11:55am, which gave me plenty of time to get to know this area before dark. I planned on spending the next two nights there. Crazy Horse, a memorial celebrating the famous Lakota leader, from a distance.





Wind Cave National Park was created in 1903 and is the sixth oldest national park. It is 33,924 acres according to the park guide, but other internet sources list the area at 28,295 acres. It has a rich network of caves below its surface, so is often called 'Two Parks in One' because of its natural and cave features.



Route 385S took me into Wind Cave NP and smack dab to this black-tailed prairie dog town, a perfect lunch stop location before I went to the park visitor center.

La man march Posta PMA

Like so many travelers, a visitor center is where I can obtain information to plan my itinerary for a given park.

I was there from 12:15-2:15pm as I not only explored the exhibits and watched the park movie, but I also hiked the one mile Prairie Trail right outside the center. I also booked the 1.5 hour Fairgrounds Cave Tour at 3:40pm.

Next page: A feature at the end of the Prairie Trail leading into the caves. The name Wind Cave comes from the wind that naturally blows in and out of the small natural entrance to the cave (see next page). The direction the wind blows depends on barometric pressure. When pressure inside the cave exceeds the current air pressure outside, wind blows out.

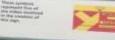


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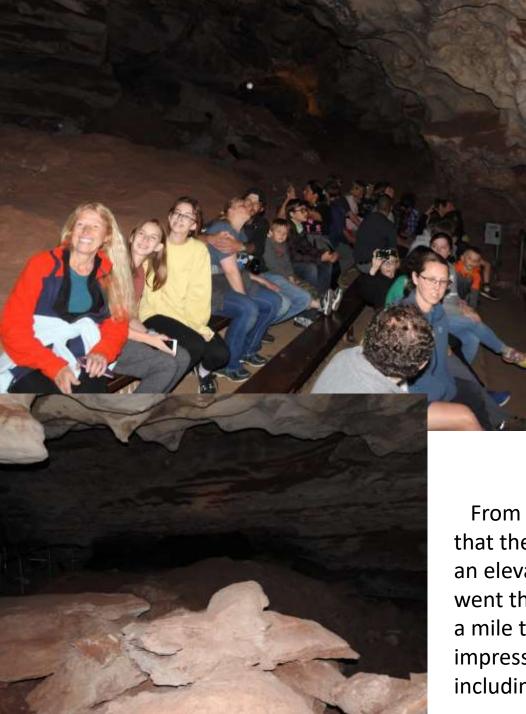
Native Nations have recognized this special place since time immeneratial. The Lakota Nation, in particular, dironicies this opening as the place of emergence of their people. "Pte Oyate"-buffalo nation, to the surface of the world. Their covarium story says they were bereath the surface and we're led to the sunlight by Tokahe (the first to come).

The cave represents the buffalo's interior complete with organs, must, and multiclos. After emergence, the Lakots saw the Black and facing wat, solidifying the relationship with the organic same same same after the same of a buffalo program that same same. Afterward, they assembled a holistic view termest "Wolskots"-natural fave encorposating all that exists, that includes all places viewed as secred.

This is one of many sacred places of Native people and it is treated with respect at all times. Mitakuye-Oyasin,



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From 3:40-5:10pm, I took the Fairgrounds Cave Tour, one of the extended tours that the park offers. It was a bargain at \$12. Most tours, including this one, require an elevator to down ~500 feet below the ground surface to the caves. The cave went through many narrow passageways so felt a lot longer than the two thirds of a mile that we actually walked. The cave is 53-54 degrees year-round and has an impressive 450 stairs on the route. The area had a lot of unique cave formations including boxwork, popcorn, and frostwork.



Example of boxwork (in the visitor center), a unique cave formation consisting of calcite surrounding bedrock. In fact, 95% of the world's boxwork is found at Wind Cave NP.

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Exploring the caves on the Fairgrounds Cave Tour was a very unique experience. While I planned on going on one more cave tour before I left the park, my immediate plan after that outing was to explore the park and figure out where I was going to spend the night. There was a campground near the visitor center but I wanted to see if I could get out to a more remote area. So, at 5:30pm I departed the visitor center and drove south to the end of the park on 385S and then did a U-turn to re-enter the park. I managed to see one bull bison, 2 pronghorns in the distance, and many prairie dog towns with some of their namesakes sitting above their holes calling to each other. Next, I drove north, past the visitor center and took a right on 87N to head to the northwest part of the park.

This was when I was totally in my element: exploring uncharted land for me and spotting wildlife as dusk approached and most wildlife became more active. The open grasslands of the southwest and northwest regions of the park reminded me of Hayden Valley in Yellowstone, a wildlife rich area and one of my favorite locations. However, Wind Caves prairies were bigger and that 8 mile section of road dwarfed the size of Hayden Valley which is an open area in an otherwise forested region of Yellowstone.

As I reached the northwest region of the park I saw 4 then 10 more bison – all bulls – along the way. Route 87 got more forested and wildlife became more difficult to spot as I drove north.



At the very northwest part of the park, prairies became more common again and soon after that a double grated area showed the northern boundary of Wind Cave National Park and the southern beginning of Custer State Park (SP). Both parks contain their bison in their respective boundaries with Wind Cave's ~400 bison living on the side that I was currently driving. At the boundary of the two parks, I took a right hand turn onto a dirt road (Route 5) leading to the central and eastern region of Wind Cave. This was pretty remote country for a ~30,000 acre park. However, the beginning of Route 5 straddled the fence separating the two parks. Frustrated with all of this obstruction, I noted in my journal "The fence is right next to the road and you can also see the fence about 200 meters away for Custer SP. These fences infuriate me as they hem in the wildlife (mainly bison)." To tempt that disdain there was a huge prairie dog colony on the south side of the dirt road. It was most impressive and caught my eye because of the sheer number of rodents out of their burrows.

After about 2 miles, the road veered southeast and left the fence and became more natural again. Just off the road, I saw 1, 2, then 1 bull bison grazing. Soon after that deviation and right by the Centennial Trail in the northcentral part of Wind Cave NP, there was a large corral that the park uses to round up bison annually to keep their numbers in check with the range. Just like Badlands NP and Custer SP these animals are donated to Native American reservations, sold to private "bison" ranchers, given to other preserves to establish or augment bison populations (which is the best outcome for the animals), or they are sent to slaughter to be eaten. It frustrates me greatly that western states, like South Dakota, do not treat them as wildlife and let them roam outside of these reserves. There is no reason they can't be treated and managed like other native wildlife.

As I rounded the bend around the corral I saw about 100 bison in the distance. I knew that these bison were cows and calves and thought that if I rounded the next bend heading south I would get close to them and have a great view of my first bison herd in Wind Cave. Boy, was I wrong. How I could lose 100 bison is beyond me but I never managed to see them again from a better angle and didn't want to turn around and go see them in the distance behind the corrals.

Route 5 took me more to the east and the bison were due south of the corrals. I wanted to move on and figured I had plenty more time to look for those bison during the next couple of mornings. To my enjoyment, there were a lot of prairie dog towns on this route and despite the annoyance of the fences, once I started heading southeast I came to wild, open prairie unfettered by any fencing. There were only two other cars on this dirt road.



At 6:48pm, I parked at a beautiful overlook with a fantastic view to the southeast into the Red Valley. It was a perfect place to boil water for a pasta-based dinner. It was a bit windy, given that there were no trees up there, but it was very pleasant. I got out my spotting scope and scanned the central and eastern regions of the park.

I had the fortune of watching this lone bison in the distance from where I ate dinner. It is amazing how small a huge animal like a bull bison can look in the winding hills of the prairie. Soon after spotting this animal and finishing dinner at 7:30pm, I drove the open prairie to the southeast, eventually reaching the southern entrance to Wind Cave National Park. It was in a very rural and agriculture region (see next page).

Notice the cattle/bison grate as I re-entered the park. The area quickly turned into agricultural lands to the south of this area. The sign in the back warns 'Buffalo (bison) are dangerous: Do not approach.'



The rangers at the visitor center said that elk are elusive and not commonly seen in the park so I felt fortune at 7:45pm to see these 3 bull elk in southeastern part of the park, about a half mile from the road.









My last activity for the night was taking Route 6 into the northeastern part of Wind Cave to the very remote southeast border of Custer State Park. There, a simple 6-foot fence and cattle grate separated the 2 parks. It continued to amaze me that these grates kept bison contained in their respective areas while we could walk or drive right across them. I turned around at this park border area and headed back to the southeast part of the park. I saw a deer briefly at the edge of some sapling trees and then a rabbit ran right across the dirt road in a pretty open area. Back east, cottontails need brushy areas to hide in so I was surprised to see the rabbit where I did. I wondered out loud, "Do they escape into prairie dog burrows?"



At 8:10pm, I got to the Boland Ridge Trail area and the sky got really dark extremely quickly. To stay in this area one was supposed to have a backcountry camping permit but the visitor center was closed by now and I decided to take my chances and park here. I knew rain was coming and I didn't want to get stuck in it somewhere else. Plus, it was pretty desolated out here and I was just staying in my parked vehicle. At 8:22pm, I heard two howls to the east by the edge of the park while I was in the middle of changing into some clean clothes. I was putting on a new outfit and using wet naps to clean myself every 2-3 days. As of yet, I had not come across a nice body of water in any of the parks and I wasn't willing to stop off an interstate highway to swim. These were normally my 'showers' when camping, so I felt grungy after a week on the road. From 8:24-8:42pm, I listened to the croaking sound of breeding frogs and noticed that there were 2-3 different species calling. Another cottontail crossed the road just 20 feet from my parked car and ran to the open into a prairie dog town. I wrote in my notes, "How does it survive here in the open?" It was quiet, even the prairie dogs knew that a weather front was rolling in.

Relaxing in my car, while marveling at the solitude of the place, the first signs of thunder rumble came in from the west. Next, lightning bolts pierced the sky, flashing all over the west side of the park. I marveled at the sights and cursed how hard it was to capture the bolts on a still image.

Earlier in the day I had hoped that I wouldn't get rained on today. Well my wish lasted for most of the day but it was obvious that the thunder and lightning show was a preclude to more rain. And sure enough, at 9:12pm, the winds really picked up, rocking my car in the process. Then the rain came. I recalled that it had rained all seven days of the trip thus far and was sure glad I wasn't tent camping as I would have been soaked. At this time the lightning got much closer and I could literally see the weather front move over me from west to east as my pickup truck was pummeled with precipitation. It rained hard for a good 25 minutes but then at 9:40pm the rain stopped. The lightning was now east of the park, and it was only windy. It was finally getting dark as sunset was not until 9:15pm.

The coyotes must have been happy for the cessation of moisture as another group howl erupted, this time over the ridge to the west. It quickly got dry out and cleared up to the point where the stars were gorgeous. I decided to put my sleeping bag and pad on the truck bed and sleep in the open assuming the rain was over for the night.

As I stared into the sky, I recalled the events of the day – like I often reflected upon during this trip – and was flabbergasted thinking back over how much I did. Surprisingly, I only drove 108 miles, not that much considering all the places I went to. It felt like three days ago when I saw the 80 deer, then went back to Mount Rushmore. That was earlier that morning, and the beginning of this chapter. Wow, what a day!

It didn't take me long to fall asleep as I looked at the clearing sky. I figured it would be quiet until morning as I cocooned into my sleeping bag. To my surprise, I was awakened two times by solo cars going by – one in each direction – which really surprised me. I could only imagine where they were going at 11-11:30pm. I would get anxious, and my heart would start racing when I saw headlights, until the cars drove by me.

Day 8: A Bison Kind of Day in Wind Cave

June 25th started much earlier than I had hoped. I finally managed to settle down after the two cars passed me, and fell back sleep but then I started to feel something hitting my head. It took me 30-45 seconds to lift my head up to realize that it was raining out – I couldn't believe it was raining again and since it was 12:30am, that made it 8 for 8 days of rain! I also couldn't believe it was just past midnight when I looked at my phone. It felt like I had been passed out for hours.

Just like at the South Dakota rest stop and the first night at Badlands, I had to scramble out of the bed of my truck and get sleeping bag, pillow, and miscellaneous gear back into the car. I reasoned that I was just going to start sleeping in the car full-time. It was easier and more predictable.

I didn't wake up until 6:08am, which was well past dawn. I clearly needed the extra hour of rest but I am a competitive person, especially with myself, and was frustrated that I lost the first hour of the day no matter what I was doing the night (and days) before. I did one more U-turn loop to Custer and the northeast part of Wind Cave, only seeing 1 pronghorn buck. There didn't seem to be any bison in the eastern part of the park on this day, and didn't see any until spying 2 lone bulls by the corrals in the northcentral part of the park.

At 7:18am, that all changed when I arrived back to the pavement of Route 87 in the northwestern part of the park near the border with Custer SP. Taking a left to head south, I only had to drive a half mile and came to 75 bison cows and calves just off the road.



The east side of the park, and its surrounding prairie country was beautiful and quiet. However, I barely saw any wildlife in the short amount of time I was there.



The prairie in the central part of Wind Cave National Park (bottom), the corrals (upper right), and bison in the northwest part of the park.



The bison were peacefully grazing on the flats of an open meadow and were spread all over. It was a special sighting of a really cool animal! I took my time to enjoy their presence but moved on when I saw another >100 head of bison a quarter mile south of these animals.







After taking pictures of the bison herds, I decided to make breakfast. Sitting on the tailgate of my truck and watching water boil might not seem like anything special, but doing it while watching, listening to, and even smelling the bison, was amazing. And the taste of fruit oatmeal, bananas, and hot chocolate was fantastic after 8 days of living in your vehicle.

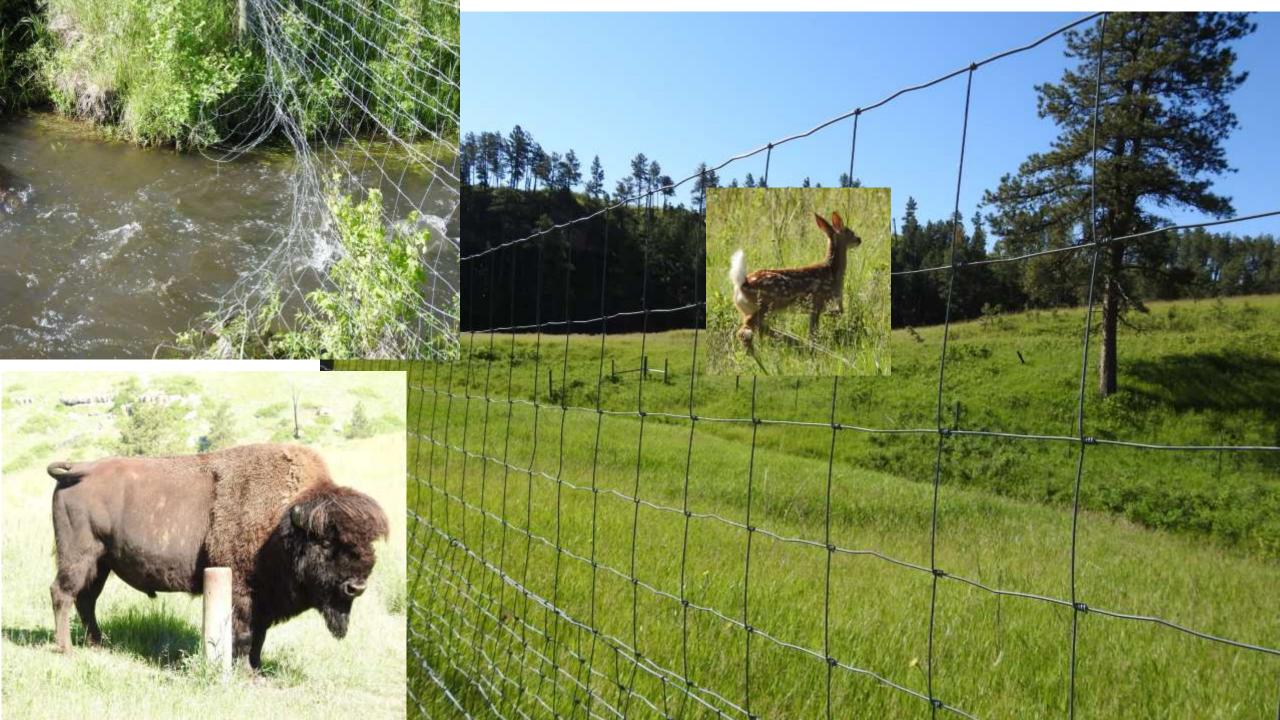
I am fit, only being 5-10 pounds heavier than when I ran track and field for UMass Amherst in the mid to late 1990s. However, that figure was when I was at home living my day-to-day life. I knew I was losing weight on this trip and any amount of calories were devoured when I had my meals. Nothing was wasted.

On my way south I took Beaver Creek dirt road out of the northwest region of the park and quickly came upon ranches on both sides of the road. I turned around after driving about 1 mile right, and saw 6 white-tailed deer grazing above a cow pasture filled with cattle. I was getting good wildlife sightings but needed a change of pace.

It had been a couple of days – since the Badlands – when I was able to take a hike of more than a mile. I was here and then there and hiking really didn't fit the schedule of the past few days. But I was yearning one and found a great 5 mile loop at 8:30am in the west-central part of the park. I would take the Centennial Trail east for 2.3 miles to Highland Creek and then come back west to my car on the Lookout Point Trail.

It was a great area with multiple (~6) water crossings on Beaver Creek which was high from last night's rain. About a half mile in there was a small enclosure ~100 feet off the trail. I went to look at it and thought it was there to keep the bison out of the wetlands as there was a stream going through it. Abruptly when I got to the fence a white-tailed deer doe and fawn crashed over the grass and ran up a hillside 100 feet away. There was a bedded bull bison nearby back on the main trail and his expression was similar to mine: wow, those 2 small animals just made so much noise! Obviously I had surprised them as much as they did us.





Most of Centennial Trail ran alongside Beaver Creek. Nearing the Highland Creek Trail, I heard a hissing sound coming out of a cave (see right). I reasoned that the rain might have increased activity with wind leaving the hole loud enough for me to hear. (I would report the observation to a ranger later that day.)

After crossing Beaver Creek (see below), I continued on the hike and about 25 meters before I reached the Lookout Point Trail, a big bull bison was standing right at the trail junction. I immediately stopped and assessed the situation, not taking it lightly. While thrilled to see an animal so close, he was near me and on the exact trail I was hiking. The problem was that even though I promptly halted my movement, he continued moving forward, even with me standing there.







After he went 10-15 feet and was within 50 feet of me, he started jogging right towards me. Panicked, I immediately ran to my right (south) to the nearest tree. He continued right at me bluff charging three times. I dropped my camera (after the picture to the left) which allowed me to jump 3 feet vertical to a branch and climb another to get about 4.5 feet off the ground on the far (south) side of the bison. His tail was up which is a sign of being angry (or having to go the bathroom which I knew wasn't the case right then).



The bull got within 8 feet from me and was blowing steam out of his nostrils. Normally silent in the woods, I yelled "get away from me bison. Stop it!" I repeated that multiple times almost like you see on television shows when people try and warn bears – usually grizzlies – of their presence. He was clearly pissed off and I was in the wrong place at the wrong time. Bison charge people every year in Yellowstone as people foolishly take selfies with the bison in the same frame. You are supposed to stay 25 yards away from them at all times.

Reflecting on this experience, I do not think I did anything foolhardy. We were 2 dudes heading in opposite directions when we each came around a bend and surprised each other.

There was a wallow, a dirt mound that bison like to roll in, that I had just passed before seeing the creature. I knew that he wanted to go to it and that is why he didn't move out of the way for me. It was about a month before the rut, their mating season, when they pee and make the wallow's stinky for the ladies. This big bull seemed to want to get a head start.

After 2-3 minutes, which felt like 10, the bison slowly backed off. He went from 8 feet to about 15 and then finally stubbornly got to within 25 feet (see top right) where he just stood. At that point, I jumped down from the tree to give my legs a rest. I was able to pick up my camera too. Once when he finally walked west away from me I sprinted east to the next tree. As predicted, he walked straight to and rolled right in that wallow (bottom right).



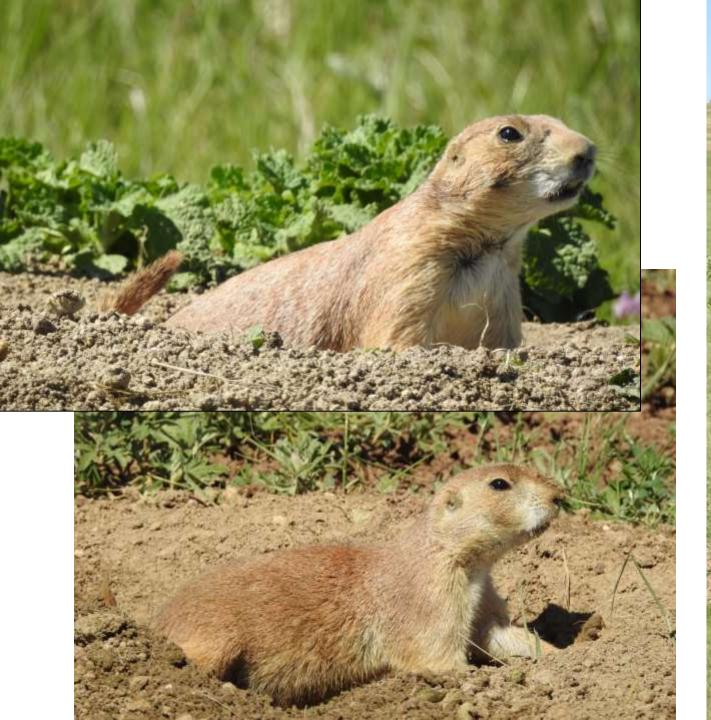


Once I got to that next tree and saw that the bison bull was not going to follow me, I quickly vacated the area. The adrenaline in my body was surging which caused my heart to race. I used that energy to run along the Highland Creek Trail for the half mile it took to get to the Lookout Point Trail. I looked back frequently. I knew the bison wasn't following but it was instinct to do so.

On the Lookout Point Trail, I saw a lone hiker from Minnesota. He was going in the opposite direction as me and had backpacked out and camped near where I saw him. He got soaked in that evening rain storm the previous night. Being a responsible person, I mentioned my bison experience. I said I have seen hundreds of them in Yellowstone including on trails in the backcountry. This guy had it in for me today. I told him to be careful and make noise around those bends especially near the bison wallow. He seemed to appreciate the message.

Once I was hiking west on the Lookout Point Trail the area became more open. I saw a few bison in the distance to the south and hiked through a phenomenal half mile long prairie dog town. It was awesome and the warm sun beaming down on me in the open grasslands felt good even though I purposely left my water back at the car to not have to carry anything besides my camera. After paralleling the park road for a quarter mile, I rounded a bend and returned to my car at 10:40am. I sure had a story to tell!









From 11:15am-1:10pm I went back to the visitor center and was able to get a reservation for a cave tour for the next day. This one was another longer tour called the Candlelight Tour. The description of it looked pretty good so I was excited for it. I was able to use the time there to report my sightings. A resource manager happened to be there and told me that the water flow was up to 10 times its normal level because of the heavy rain last night, which probably – as I expected – caused the cave to be more noisy. I also did mention to them about the bison and I made it clear that it was a random occurrence, and just to warn people hiking that area about the wallow right off the trail.

I was able to spend a fair amount of time on the visitor center's Wi-Fi which was nice so I could get up to date on emails and articles that I had missed in the previous week. It was my parent's anniversary and I hadn't talked to my son so I was able to be productive and get back to reality for a few minutes. I was beginning to like the current reality of where I now was compared to everyday life, but it was still nice to communicate with family. Lastly, I obtained a backcountry camping permit for the Centennial area so I could legally park and sleep near where I had just hiked.

My plan for the afternoon was to drive north through Wind Cave NP on Route 87 and explore Custer SP. I had been to the northeast region of Custer on my Black Hills to Mount Rushmore exploration but I hadn't spent significant time in the 71,000 acre wildlife preserve yet. Entering from the southwest, I would have plenty of time to do just that.

On the way through Wind Cave I saw 2 bison and 2 pronghorn in the middle of the afternoon. I knew that most animals were not active then and I just wanted to cover ground at that point in the day. My plan was to drive a clockwise loop through Custer. Thus, the beginning of this voyage would be on the west side of the state park. My first main stop was at the Mt. Coolidge Fire Tower, which was a short drive off the main road. I was impressed with the breadth of the view. From the one location you could see the Badlands, Mt. Rushmore, the Needles (I will discuss more on this natural feature later in this book), and Crazy Horse.

After this stop I drove 87N to Route 16A to the east stopping at the main Visitor Center which had a great 18 minute film narrated by Kevin Costner. To many people, Costner is a symbol of South Dakota with his blockbuster 1990 film *Dances With Wolves*. I also stopped at the Custer General Store to purchase my customary magnet and took pictures of the Custer Game Lodge. I was impressed with this park and hadn't even observed a lot of wildlife at that point yet.

Wildlife along the way in Wind Cave National Park.

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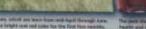


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Mt. Coolidge Fire Tower with views of Mt. Rushmore area (left), Crazy Horse (center), and the Badlands (right).

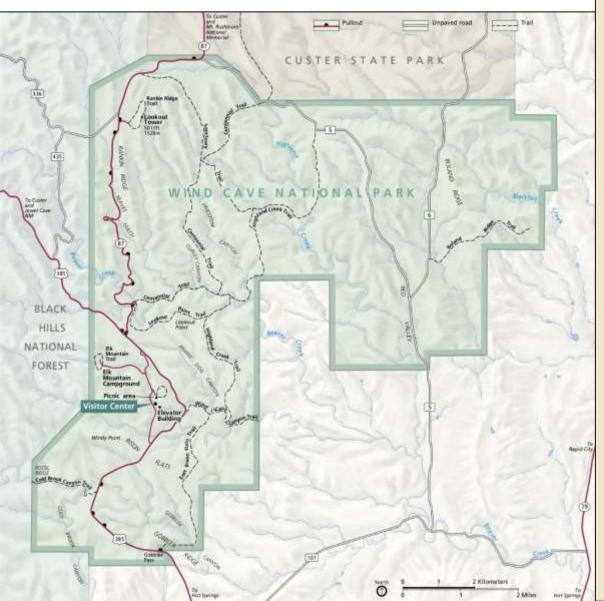


Custer State Game Lodge is a famous place that past presidents have visited, including Coolidge and Eisenhower.





At 4:40pm, I started driving the Wildlife Loop Road which goes clockwise from the northeast to southeast to west-central part of the park. It is known for its name: wildlife! I was starting on the early side as dusk wasn't for a few hours but I also wanted to get back to my campsite in Wind Cave at a decent time. I only saw 2 bison and a pronghorn all the way to the Wildlife Station Visitor Center in the southeastern region of the park. I was not that impressed thus far. Maps of Wind Cave National Park (below) and Custer State Park (right). As indicated, Custer (which is more than twice as large) is above (north of) Wind Cave but fences between them make them effectively not connected.





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Soon after the visitor center stop, which didn't have many exhibits so was a quick 5 minute stop, I saw 3 bedded pronghorn west of the road. They were probably a doe with 2 young ones. I had seen plenty of pronghorn already so continued on. At 5:30pm, as I drove along the southcentral area of the park, I noticed a lot of subdividing fences within the park. It was clear that the park kept bison in one place and then moved them sporadically, not dissimilar to cattle in many areas. Included with these fences were cattle guards on the road, a clear sign that even within the park, bison did not have total rule of the area. They were essentially *told* where to go. As I articulated from within Wind Cave NP, all of these fences angered me. I guess I am an idealist and would like the parks, and even areas beyond the reserves, to be as natural as possible.

At about 6pm I got to the southwestern part of the Wildlife Loop at mile 6 (if coming from the southwestern Blue Bell entrance, but I was driving the opposite way), and there was a huge traffic jam. I knew bison were nearby and as I drove around a bend I noticed bison all over. There were easily 100 of them, probably more. The cars were not moving, making the area a linear parking lot. I decided to turn around and go back (east) to a pullout at a cattle guard. There I made what tasted like the world's best dinner: a 3-egg cheese omelet with toast – not bad for where I was. I kept up-to-date with my notes as I ate.

At 6:15pm there was still traffic a half mile ahead viewing the bison. It had been thundering for 1.5 hours now with only rain sprinkles (remember, I had already received rain this morning at 12:30am!). I read the park brochure, waiting for traffic to subside before continuing on.



At 6:35pm traffic began to finally dwindle. I read some of the Wind Cave and Custer park brochures to pass time; after all, I wanted to read them anyway so it was a perfect time. As I trudged through the traffic, I realized I had vastly underestimated the number of bison. The jam was more like 300-400 of the shaggy, prehistoric beasts. They were right at Oak Draw Road so their location was easy to find on my map in the extreme southcentral part of the park. 'Amazing', I wrote. Bison were everywhere with many just standing, and some even bedded, on the road. I absolutely love the musty smell which is palpable when among a herd. It is a scent of wildness that my brain instantly recognizes.





Shortly after getting through all of those bison I saw 3 separate lone white-tailed deer on my drive out of the Wildlife Loop. It's interesting how relative things are for people. Depending on where one is, those deer would likely get the passerby to stop and marvel at them. I know if I saw them on Cape Cod, MA it certainly would. However, after seeing over 300 bison, I never even slowed down at the sight of these smaller ungulates.





To my surprise, I got into 2 more bison jams on my drive out of Custer SP. These were on 87S in the southwestern region of the park. The animals were nowhere to be seen when I went by in the afternoon before I went up the Mt. Coolidge Tower. The first group was ~100 cows and calves and there literally appeared to be just as many calves as adults! They were moving south about a quarter mile north of the junction with 4 Mile Drive, in the very southern part of the park. I was so close, with my car off, that I listened to them chow down munching grass. They were real life vacuum cleaners.

It was getting late so I didn't spend too much time with this herd. Then, a half mile south of 4 Mile Drive, I came around a bend where 50 more bison were on the road. Shortly after that another 75 cows and calves were close, right on the side of the road.





Yet again, the word 'amazing' made another appearance in my journal. Altogether I went from having a slow evening in Custer to seeing over 600 of the wild bovines. I wondered where they would be in the morning.

I arrived back in Wind Cave NP side of the road at 7:40pm and saw 9 more bison in 3 separate groups in the north part of the park. The cow/calf group from the morning had moved on to the east and out of sight of the road. I also saw a single then pair of white-tailed deer as I drove further into the park. At 7:52pm, I pulled into the Centennial Trail lot where I was to sleep for the night. There was still plenty of light so I decided to drive to the southern part of Wind Cave one more time, this time at dusk. I am a glutton for punishment and exhaustion, but it also allows me to see all that I do.

It was about 6-7 miles one-way to get back to the southwest region of the park. I saw a white-tailed deer buck right where I saw 2 pronghorns earlier in the day. He was in a prairie dog town just looking around as I drove by. It was a very open area for a white-tail. I also saw 1 deer, 1 pronghorn and then a bull bison at the second to last pullout before leaving the park. Lastly, I saw 6 bison bulls at the very southern edge of the park. Altogether I had seen 3 different species of hoofed animals and I managed to get back to the parking lot at 8:53pm. I was originally planning on hiking about a half mile into the woods but I was tired. After brushing my teeth it took me no time whatsoever to pass out in my reclined seat. I was fried, having driven a local 143 miles through Wind Cave and Custer on this day.



A young bull elk observed at dawn the following morning (see next chapter, Day 9).

Day 9: Custer Bison Galore then Cave Exploration

I woke up at 4:45am on June 26 to an elk calling to my southwest. That was the first elk I had heard on this trip and I quickly jumped out of my truck to look for it. They have the most beautiful bugle call that echoes across valleys and ridges in this mixed prairie – forested region. I was rearing to go as I had retired early and slept pretty well considering where I was. Just before 5am, I spied a cow elk in a hillside drainage close to the parking lot to the south. I left the lot to try and drive closer to it but couldn't locate it again. Instead, I saw 2 big bull bison right off the road in the same area. The elk must have been behind a ridge from that angle, or it ran away.

My plan was to drive to the south part of Wind Cave one last time at dawn and then head back to Custer as early as possible depending on my luck at Wind Cave. In short order, at the 385S/Wind Cave Visitor Center driveway area, I saw 10 bull bison dominate that stretch of prairie. They stood on top of a ridge of prairie looking like the behemoths that they are. Shortly after, at 5:06am, a young bull elk with nubs for antlers stood on a hillside right near the park maintenance area south of the Wind Cave Trail. This was turning into an 'elky' kind of morning, which I thought was pretty cool since I was told how elusive they are there.



As the young bull elk moved to the east behind a hill, I drove further south a short distance and saw a second elk above him, as well as two bison. They were all two ridges away so I continued on my way to see if I could get closer to any other animals at first light. That plan worked out perfectly, because as I got to the second to last pullout in the park at the south end – the one with the 'Bringing Back the Bison' sign – two cow elk were standing in the mud where I had seen bison earlier in my visit. The light was still low so pictures were just becoming obtainable. I focused on those two females, but noticed four more elk up slope of those two. They were grazing on the rolling hillsides to the east.

A family of crows was also particularly loud from there, which gave me a familiar sound from back east. I had been hearing and seeing them through the park in the past two days, but hadn't heeded them much attention due to everything else I was doing. I wondered why their larger cousins, ravens, weren't there. Ravens typically live in more wilderness park-like locations, although we were still in a developed and agricultural region. My guess was that ravens live more in the mountainous and wooded regions of the Black Hills, possibly augmenting their omnivorous diet with mountain lion deer and elk kills.

Before doing my customary U-turn just outside the southwest part of the park, I managed to spot a lone bull bison then 9 more in fields west of the road. I drove the 12-14 miles from the south side of the park to the north end. At the northern region of Wind Cave, I saw the same large cow/calf bison group right by the dirt road to Route 5. There were over 100 of them as well as a buck pronghorn in their midst. I spent a few minutes looking at them but really wanted to get back to Custer. I could literally see the border of the park from my location so continued on to the north.

I entered Custer SP at 5:55am. Within a half mile, there were 100+ cow/calves and they were everywhere including one standing at the first cattle guard inside the park. It was a sobering illustration of how effective these devices are at blocking and altering bison movement as the cow walked parallel to the fence-line. However, there was a door open near the grate that allowed the bison to pass through from one side to the other (see next page). It sure was an impressive sight to see the bison so close again. I reasoned this was the last group that I saw at dusk the preceding evening moving in that direction.



I watched these bison for 10 minutes. While enamored with the magical presence of them, I was also aware that dawn was getting further away with each minute that I spent there. So I continued on, but not for long because two minutes later and a half mile north of the first herd of bison, another 200+ cows and calves were moving south on the road. That required an obligatory jotting of "Amazing!" in my notes. Three of the bison cows and their calves came and sniffed the car. As I wrote in my notes, two more came to the driver's side door and were literally a foot from me. I could have touched their heads if I wanted but I refrained from doing so. These bison were actually closer to me than the big bull who treed me the previous day, albeit in much different circumstances!





These photos give a good perspective of just how close these bison were to me. I was taking video of a two cows rubbing their heads on my car at the time and then 3 calves, including this one, came right up to me. What a fantastic experience!





As that second herd of bison passed me I once again realized that I had underestimated what I saw. It was more like 300-400 in that second cow/calf group. Wow!

I stayed parked for ~15 minutes, and enjoyed the presence of these animals sharing the road and land with me. After that sighting, I only made it another half mile north then saw another 50 bison with a big bull in the mix. He was "a big one", I noted. He made the male lion sounding grunts typical of dominant bison. Adding up the morning so far, I had seen 600+ bison in Custer, all before 4 Mile Draw Road, and ~150 in Wind Cave. Unreal! I forgot at the time until reviewing my photos after I returned home from the trip, that I also saw a nice white-tailed deer buck grazing in a young pine stand above and to the west of that last group of bison. What a morning it was so far.

A short way up the road I had an interesting mixed species sighting. A whitetailed deer doe and a mule deer young buck were staring at each other from opposite sides of the road.







The white-tailed doe was to my immediate west and was most interesting in foraging, while the 'mulie' buck was intent on staring at the doe and my car. The two species are closely related and are in the same genus (*Odocoileus*) but are definitely different species. White-tails are more of an eastern animal and live in more forested areas and often along water drainages out west. Mule deer are a western species and are bigger on average, especially the males, and use more open terrain characteristic of much of the west.

After about two minutes of close proximity both animals walked in their respective locations away from the road. Even if they were the same species, bucks and does do not spend much time together outside of the fall mating season. Plus, the doe likely had fawns to tend to.



Following that unique sighting, I took a right onto the Wildlife Loop Road and drove the road in a counterclockwise location, opposite of the previous night. I realized that the east rising sun would be in my face for at least part of the drive but it was the only way to efficiently do the loop given where I came from.

At 6:39am, and about 1 mile in on the Wildlife Loop, a coyote sprinted across the road when I was downshifting into a lower gear as I rapidly descended a hill. I normally keep my camera on the floor mat between my legs so I can quickly pick it up but this critter was out of sight before I could even turn it on! It was booking it.

Further along, I saw 2 different white-tailed does and 2 groups of 6-8 bison at a hairpin turn near Oak Draw Road, the site of the previous day's bison jam. That area was a very steep bottleneck location compared to the normal open terrain that they inhabit. After going around a second hairpin turn I spied 50 more bison grazing on a hillside. It was nothing like the preceding night, so I snobbishly decided that those bison weren't worthy of my time to take additional pictures. I rationalized that most of the animals seen there last night were probably part of that large herd located all the way on Route 87.



I did not have many sightings on the southeastern and eastern sections of the Wildlife Loop except for all those interior fences . I noted that "it is so sad to see all of these fences in a wildlife preserve". I did see 1 pronghorn on a hillside, then a bull bison and pronghorn east of the fenced-in airport on my way out of the loop road at the east-central part of the park. By 7:38am, I was at the very north end of the Wildlife Loop when 10 bison cows and calves walked south with a big bull following them. I was fascinated by this relatively small group after the considerably larger herds sighted this morning. I decided to leave my camera on the floor mat and just enjoy the presence of these animals with my naked eyes.

Since it was still early, the visitor center was closed. I drove to the General Store and used their bathroom to shave. I did so every 3-4 days which kept my hygiene manageable given the circumstances. Considering that I was almost a week and a half into the trip, I was doing pretty well at staying relatively clean even without taking a real shower up to that point.

Driving west on 16A, I saw 8 bighorn sheep on the north side of the road eating minerals from a clay/dirt deposit. They were right next to Grace Coolidge Campground in an odd area for bighorns, since it was not that steep in topography.

Further up the road, about 1.5 miles west, I saw a white-tailed deer doing the same thing on a different mineral deposit.





Soon after that sighting I took a right off 16A and drove the Needles Highway northward, a spectacular road in the extreme northwest part of Custer SP. That location is not too far as the crow flies from Mount Rushmore. It is another breathtaking place with an open savannah-like landscape with ponderosa pine dotting the landscape. I saw a white-tailed deer on the drive up.

There were two tunnels on the road and on the second one, 'Needles Eye Tunnel', cars were led by a guided truck due to road construction in the area. However, what delayed the cars from passing through the tunnel escaped me until it was my turn and saw there was a mountain goat literally in the tunnel. It went in and out twice and was blocked by cars while doing so. Unbelievable! Mountain goats are actually non-native to the region having escaped from pens in Custer SP in the 1920s. They now live throughout the mountainous regions. They inhabit high, craggy peaks to avoid predators.



Needles Highway was a spectacular drive, similar to the nearby Iron Mountain Road.





After navigating through the peak of the Needles range I then drove Route 89S to 385S to get back just in time for the 10:30am 'Candlelight Cave tour' back at Wind Cave. This spectacular \$12 ranger-led hike took a full 2 hours and covered a mile of the cave system. It was in the same general area of the Fairgrounds Tour route but this one went to a dead end loop at 'Standing Rock Chamber'. I liked this experience the best which was amplified by the fact that only 5 people were on this tour compared to 39 from 2 days ago.

Going into a cave is a most impressive experience challenging one's traditional senses as you bend, stoop, and climb stairs. The area is pitch black when lights aren't illuminating an area. The lighting system in a cave is two-fold: electricity-powered traditional lights in some areas and flashlights or candles in other places. The namesake of the trip I was on used battery powered 'candle' lights; when they were turned off it was legitimately pitch black in the cave. Traditional candles are not used anymore because of the wax build up in the caves so the candles are now powered by LED bulbs to be more environmentally friendly.

I had such a fantastic time on the excursion, I went out of my way to leave a good review on a visitor feedback form at the main desk. Most of the rangers that lead hikes are seasonal employees working 4-5 months a year at a given park. Leaving positive experiences helps ensure that these 'second class working citizens' of the park service are hired back. I say that because these employees are the heart of most parks but are paid a relatively low wage mainly because of the reduced hours that they work on an annual basis. The appeal of working for the National Park Service allows the government to get away with that.



Candlelight Cave Tour





After the Candlelight Cave Tour, I checked my email and other internet-based needs and then got on the road a little after 1pm to head to Jewel Cave National Monument (NM). It was a great couple of days toggling between Wind Cave NP and Custer SP. The wildlife, especially bison, sightings couldn't have been any better. But I was on a schedule – albeit a rough one – and had to move on to do everything I wanted.

I took 385W out of Wind Cave and then 16W to make the 30 mile drive to Jewel Cave NM, arriving there in the midafternoon. I wasn't exactly sure what my plan was other than going to the town of Deadwood after I was finished at Jewel Cave.

There was construction around the Canyons Trail in Jewel Cave so only the quarter mile long Roof Trail was open. I had over an hour before the general 20 minute Discovery Tour that I had booked so figured I'd take a short hike. The Roof Trail provided a pleasant view to the south (below left) of the surrounding Black Hills National Forest. It was a great way to spend time before the tour began at 5:15pm.





The longer tours were fully booked and I wasn't planning on staying there for the night to do one the following day so I took the short \$4 Discovery Tour. It was well worth the time and certainly the price. This ranger-led excursion was an introduction to Jewel Cave's underground system. We were brought to the main tavern of the cave about 200 feet below ground level. For being about 30 miles from Wind Cave, these were two completely different underground systems. The sheer size of this open space, about the size of a small house, was impressive and much different than the narrow crevices at Wind Cave.

Elevator leading down to Jewel Cave's big room.



The tavern at Jewel Cave National Monument, about 200 feet below the surface.

Similar to the 3 day/2 night experience at the Badlands, I really enjoyed the past few days at Mt. Rushmore, Wind Cave, Custer, then Jewel Cave. Ideally, I would've had the opportunity for the longer \$12 Scenic Tour but it was sold out and I just had 2 fantastic outings at Wind Cave, even though they were from a different cave system.

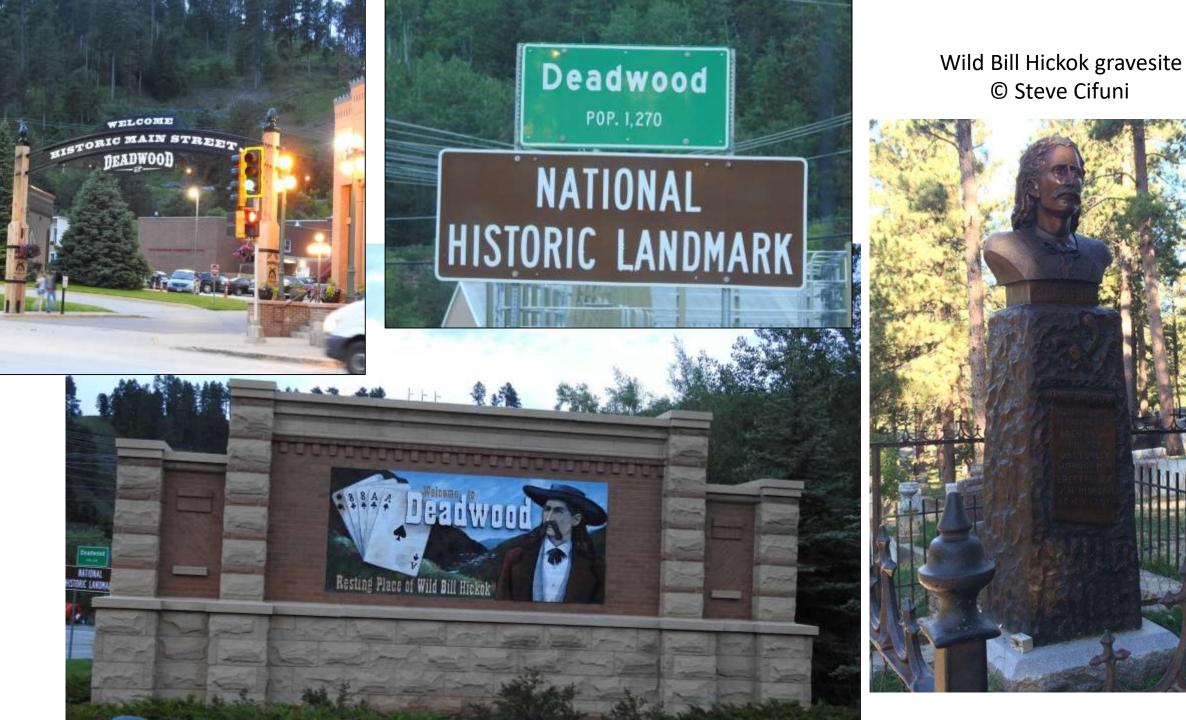
I decided to get slightly ahead of schedule and leave Jewel Cave after I had dinner at a pullover in the area. It was already 6:30pm but I was ambitious as I wanted to get to Deadwood by dark. I did just that after taking 16E to 385N to 85N. It was 8:30pm when I arrived and I managed to see many deer at dusk in groups of 1, 1, 4-5, 5-6 (with the sun right in my face), 1 (right off the road), and oddly, a radio-collared bighorn right on the side of the road just east of Hill City. It was a unique sighting as I don't associate these wild sheep with development, but there it was.

From 9-11pm I walked the streets of Deadwood. There were many bars including one where Wild Bill Hickok was shot to death in 1876 while playing cards. I found a store with a really cool model train set-up and I went into the Silverado to gamble away a \$20 bill at the slots for free beers. I was exhausted from the pace I was maintaining but this was a great change of pace.

I walked the streets after leaving the Silverado and then drove to the Deadwood Welcome Center on the other side of town and fell asleep in the lot fairly quickly, having to put my sleeping pad over my dashboard to keep out the overhead street lights. I passed out at 11:45pm just as it started to rain steady with lots of lightning. My streak was intact! It had rained again, 9 out of 9 days so far!



Custer, SD, town center



Deadwood at night, with a model train exhibit in a local store.





Below: Location where Wild Bill was shot. A sign memorializes the night of August 2, 1876. The Silverado (right) has loads of slot machines, like Buffalo Gold, to draw in out-of-towners to this casino.





Day 10: Devils Tower and the Route of Desolation

I knew I was not going to sleep well given that I had drank the night before at the casino and was in a parking lot next to a main road. I had to go the bathroom in the middle of the night and then there was human activity at dawn, including people walking and talking on a nearby trail.

I woke up and was ready to go at 6am on June 27th. Despite the morning noise, it was a good location to get quickly moving as there was a restroom right there. By 6:30, after taking my first daylight drive through Deadwood, I departed city limits and headed onto 85N to Mt. Roosevelt at the north edge of the Black Hills. There, I hiked the 1 mile loop to the top of the tower that Seth Bullock had built for the famous president in 1919. Bullock was a lawman, rancher, and entrepreneur that befriended 'Teddy' in this region of the country, and is featured in the HBO series 'Deadwood''.

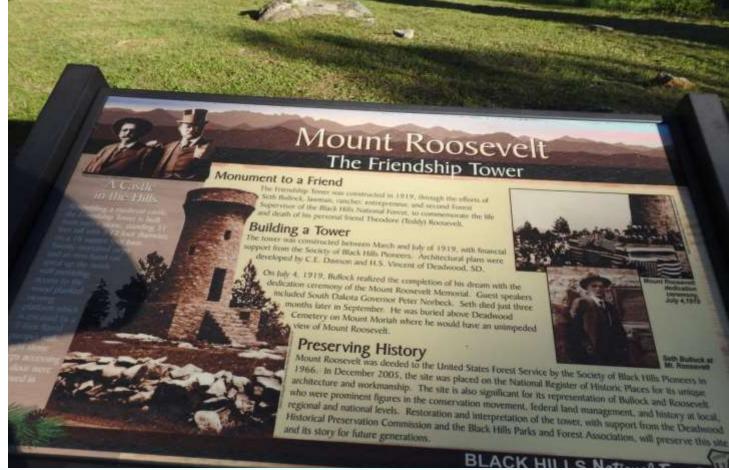




There was rich human and natural history in the Black Hills. It was truly a special place to explore and I saw so much during that week. But all great things must come to an end and I knew as I got back to my car from the short hike that it was time to drive further west and see other remarkable places.

On my way out of Mount Roosevelt, I managed to see 2 white-tailed deer up a steep ridge, then a mule deer, all before leaving the dirt road on my way to the paved highway. Not a bad start to the morning, I thought.

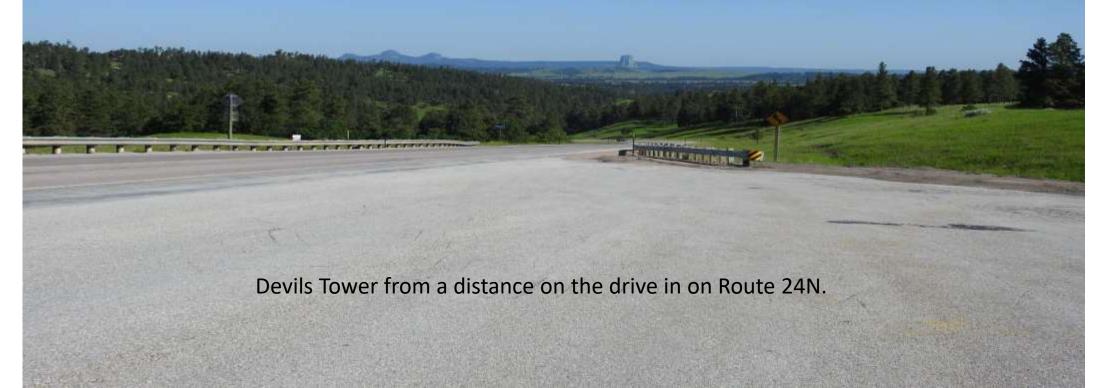
At 7:11am I began my drive on 85N. I was heading to Devils Tower in northeastern Wyoming, and the early start – even after a decent hike – ensured that I would arrive there by mid-morning.



View from the Friendship Tower

Not to my surprise, I saw more ungulates on the morning drive: 6-8 lone deer and 2 pronghorn grazing near the highway as I flew past them. Route 85 soon merged on to a familiar interstate: Route 90, which begins its journey in my home state of Massachusetts and continues across the country. I took 90W to 14W in Wyoming. The final leg of the journey was on 24N and that took me directly to Devils Tower at 8:45am. The view there was impressive with multiple perspectives of the famous formation from miles away.

Bear Lodge is one of many American Indian names for the Tower and those indigenous people revered it – both spiritually and culturally – and used it as an important navigational landmark. Early European explorers found it to be a special place too, and President Roosevelt proclaimed Devils Tower the first national monument in 1906 under the new Antiquities Act. This law gave presidents unilateral authority to preserve land, many of which eventually become national parks through acts of Congress. Former monuments that are now national parks include Acadia, Grand Canyon, Grand Teton, Olympic, and Zion, among others.









Approaching Bear Lodge, the Native American name for Devils Tower. It is a place revered by many human cultures.



Devils Tow National Monument

National Park Socono U.S. Department on the

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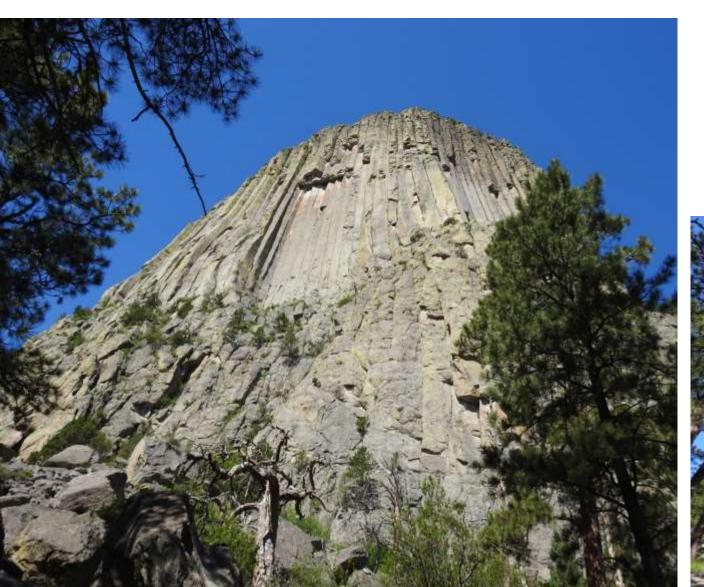
Soon after entering the national monument there was this great prairie dog town with turkey vultures soaring overhead (previous page). It was a perfect place to have breakfast before driving the 3 mile road up in elevation to the park's visitor center.

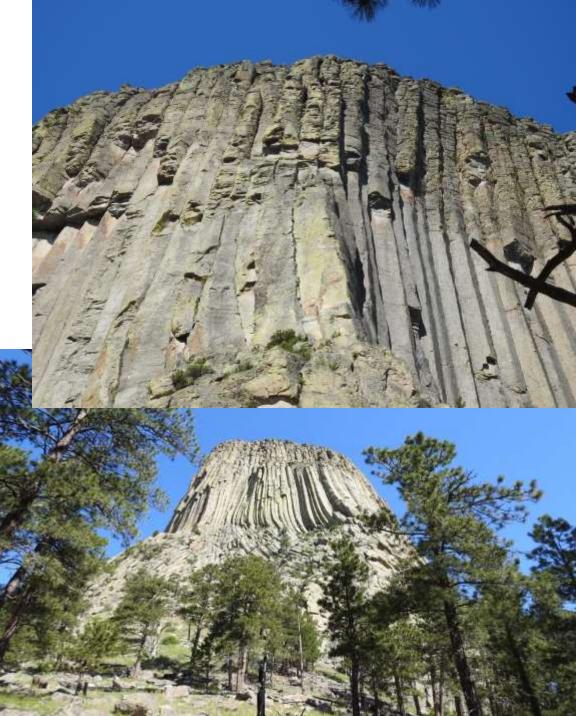


On the way up to the visitor center, a deer crossed the road just before I reached the parking lot. Despite the park being less than 1,400 acres, it felt like a true national park given my initial wildlife sightings. There were numerous people there but I managed to hike a peaceful hour on the 1.5 mile Tower Trail, which circled the park's namesake. Various angles along the trail provided different lighting conditions which made the monument look beautiful in the morning light. I managed to see a white-tailed deer at the southwest part of the trail loop just before finishing the loop at 10:45am.

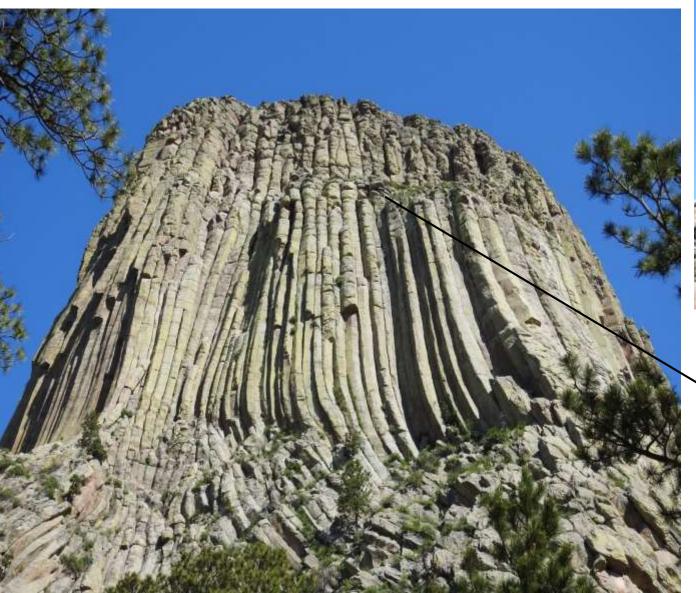


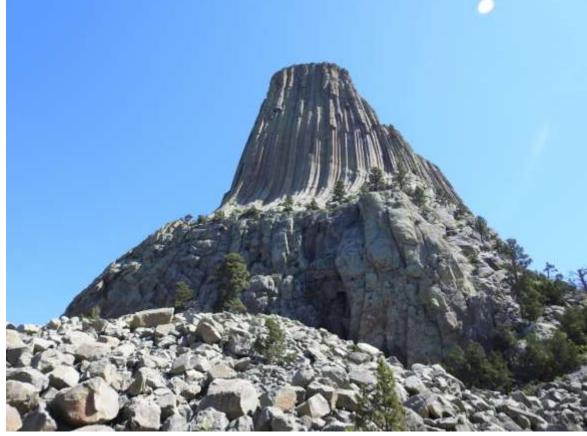
The vertical columns formed ~50 million years ago when molten magma was forced into sedimentary rocks above it and cooled underground. Since then, erosion of the rock has exposed Devils Tower and nearby areas.





Views from the southwest (right) and southcentral (below) section of the Tower Trail. A climber hiking up the large butte in the image below (lower right).







Per a park ranger's advice, after leaving the visitor center and the Tower Trail, I took a short drive to the northern part of the park and hiked the 1.5 mile Joyner Ridge Trail loop. It only took me a half hour and I was finished at just past noon, having already hiked half of the paths in the park. I left the longer Red Beds Trail un-hiked. But since that was literally in between the 2 other shorter ones, the ranger assured me I would get the most bang for my buck by hiking those two, which totaled a rather pedestrian 3 miles.

She wasn't wrong. The views were spectacular and different from Joyner Ridge. A white-tailed doe even walked right by me, 20 feet away, as I stood still and silent as she sauntered by me on a forested stretch of the trail. I knew that sightings like this could only happen because the animals were living in fully protected places such as the national monuments and parks that I had been to during the first week and a half of my odyssey.

The morning couldn't have gone any better. From 12:15-12:35pm, I drove down the park road and took more pictures at the southern region of the park in the picnic area. I then headed out as I was ready to leave Devils Tower having seen most of the sights in just a few hours.

I was now prepared to embark on a marathon drive to a brand new area for me: American Prairie Reserve in northeast Montana. It would be a long drive and an even tougher mental experience. But it would create stories for years to come.







Views of Devils Tower from the Joyner Ridge Trail from about a mile away.





White-tailed deer doe from the Joyner Ridge Trail.



Breakfast and view of Devils Tower before leaving the monument.

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On the way out of the park, final views included red rocks and the spiritual "Circle of Sacred Smoke", a sculpture near the picnic area.

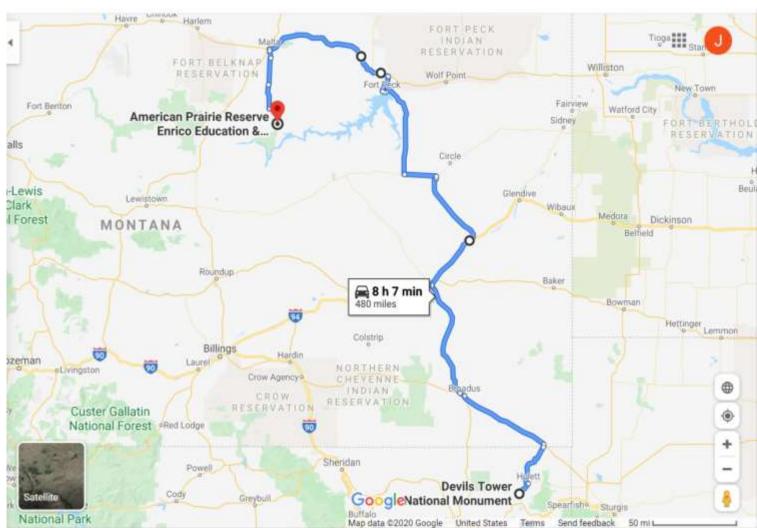


The drive from Devils Tower to American Prairie Reserve (APR) was anything but direct. It didn't help that soon after leaving Devils Tower I drove on 24E right past 112N. This was very rural country and a GPS wasn't helpful as the roads were so long it wasn't practical to use one all the time. Route 112 wasn't even marked in the small town of Hulett, WY, so I went about 40 minutes (30 miles) out of my way. I turned around when I got to a national forest which I knew should have been well east of me. Apparently, I was heading back to the Black Hills in extreme northeast Wyoming. I also passed the unique town of Alva, which appeared to be a literal junkyard, for a half mile on route 24. A sign said population 50 but based on what I saw I was skeptical there were even that many people.

Route 112, once I finally found it in Hulett, led me into southeast Montana and to 212W. I then followed 59N for a long way to the northwest. It was astonishingly desolate country.

Eastern Montana has been declining in population for decades and the main thoroughfares are east to west in that huge region of the state. I was going south to north. There were repeated stretches of tens of miles of nothing but sagebrush. I drove long stretches where I barely saw cattle or any sign of human settlement. Much of this was owned by the U.S. Government Bureau of Land Management.

Even in 85-88 degree heat, I saw a few herds and numerous small groups of pronghorns on the plains as well as a few elk and even some prairie dog towns outside of protected areas.



Prairie dogs are often killed by land owners because they dig holes that cattle supposedly fall into and wound themselves. Bison have evolved along side the critters so are more adept at avoiding injury. The evidence of wild prairie dogs living in this country indicated to me that cattle do not rule the land (However, bison also do not live in those regions either). Much of the sagebrush and prairie was in pretty good condition with cows here and there that didn't have too much impact on the landscape.





I was on 2 lane roads for much of the drive, yet I drove 75-80 MPH most of the way. There was so little there and it was so far to American Prairie Reserve I tried to save a little time. Judging by some cars passing me, most do likewise.

Just as I thought I was in the middle of nowhere, from 59N I took 94E to 253N which was "beyond desolate", as I indicated in my field journal. I have spent time in rural places, including many areas out west and wilderness areas of northern Maine, but this easily took the cake! I got gas in Miles City and asked two employees in the store if Route 253 was even a viable option as the atlas indicated it might not be paved. They both didn't know which shocked me, like they hadn't been out of that town in their lives. Luckily, I saw a car that had a sign for Bison Engineering so I figured the man driving it was an environmental consultant. I asked him the same question and he said I should be ok on that road. Fortunately he was correct and I was able to push along further north toward American Prairie Reserve.

I don't know why I felt so rushed but I guess I had the unrealistic thought that I might be able to get to APR that night. My legs were cramped and throbbing after sitting in the same position for hours. I needed a break and found a good rest area at the junction of Routes 200 and 24. I got out and almost fell out of the car when I tried to stand up. If anyone was there, it would have been comical to watch. My legs were literally numb from sitting for so long. There was one other guy at the site and I joked with him about being seemingly in the middle of nowhere. He chuckled and nodded. He had California plates so I assumed he wasn't from around there.

I was excited for this stretch of road because I was soon going to approach the southeast edge of the very long and linear west to east Charles M. Russell National Wildlife Refuge, a 1.1 million acre preserve centered around Fort Peck Lake. This lake was the result of damning the Missouri River in the 1930s. There were more cattle on 24N than most of the drive but it still was relatively void of people. I also had a great view of 8 pronghorn bucks right off the road, but coasted past them without stopping.

I arrived at the Fort Peck Dam and the surrounding reservoir at 7:45pm. I found a boat launch area, parked my car, and went into the cold water. I was exhausted but filthy and needed to feel clean. It was my first swim of the trip and essentially my inaugural shower besides using wet wipes a few times.

Normally when I go camping I find plenty of water but not on this trip. It felt great to go in to the water body, shake my head under water, and then come out and put fresh clothes on. The water was cold enough that my body gasped and I immediately shivered, feeling the effects of the temperature. I was boiling water while doing this and then cooked and ate an entire 12 ounce box of generic Mac 'N Cheese.





I knew after having dinner I wasn't going to get to APR that night but I thought I would drive some more to get closer. So at 8:30pm I continued on, seeing 2 nice mule deer bucks in sagebrush just west of the long dam. I felt so spoiled that I could skip even bothering to get a picture of such beautiful animals as I wanted to move on and save time. My goal was to get to Route 2 and drive west on that road a bit.

As dusk approached, the sky got dark very quickly and it wasn't just because the sun was setting. It was noticeable that storm clouds were saturating the area and rain was imminent. The sky was beautiful, something I usually don't observe before precipitation comes. Usually the sky gets really pretty after it rains and the sun tries to poke back through, but not before.

As I drove the last stretch of Route 24 and neared Route 2 West it started to rain. A few minutes later as I reached the city limits of Glasgow, MT, it began downpouring. I was still 70 miles from Malta, MT, which is the gateway to American Prairie Reserve. I had a chance to get there before the rain but within minutes I couldn't see anything it was raining so hard.



Fort Peck Lake/Reservoir

A beautiful but ominous sky at dusk hinting at the rain that was about to pummel northeast Montana, including my truck.

I managed to drive another 15 miles on Route 2 West and pulled into a rest area at 9:35pm. It was still thundering, lightning, and raining. I was done, both mentally and physically. I decided to pull into a quiet stretch of the parking lot away from some trucks that were parked for the night. My odometer read 511 miles traveled for the day!

When I thought back to the morning about waking up in Deadwood, SD, then traveling and exploring Devils Tower in northeastern Wyoming, it felt like a different day. I was exhausted but wired from all that I had done on that day. As was customary, I made sure to have my field notes updated before I went to sleep. On some days I could keep up with my activities as I did them. On other days – like this one, which involved much driving – I had to summarize most of the day's activities before retiring for the night.

At 10:15pm, it was still raining and lightning so hard I couldn't even really see where I was. It felt like I was in a strange dream. As I finished these notes, I shut my eyes after putting my sleeping mat over the windows to block the outside light. Then I tucked into my sleeping bag, putting a pillow on each side of my reclined seat to give myself room to roll over. I also took off the head rest as it wasn't aligned well to my head at the fully reclined position. I was doing this every evening and beginning to just sleep in the car without a thought. This routine provided a little bit of order and mental comfort to my completely unstructured days.

As I was about to doze off, I recalled having been on Route 2 before. It was June 2001 and my sister, Nicole, and I drove out west together in her small Honda Civic. We had just spent 3 grueling days backpacking about 30 miles in the Boundary Waters Canoe Area Wilderness, often hiking on barely recognizable trails. The most memorable part of the trip was when I was in mosquito-infested woods sitting on an open aired outhouse (just the toilet, no actual "house") when I heard a crashing sound in the woods which materialized into a bull moose running straight at me. I dove out of the way behind a tree as it ran by. I never heard anything else but had always suspected that wolves were after it.

Nic and I left northeastern Minnesota and took Route 2W through all of North Dakota and Montana to get to Glacier National Park. We both still remember how long the roads were and me getting pulled over by a sheriff for speeding in eastern Montana. The sheriff had me give him \$20 for a supposed ticket, which never appeared on my driving record!

As I fell asleep I had no recollection of this area from 18 years prior. That would have to wait until the morning when I could actually see outside.

If you are keeping track at home, I now had rain all 10 days of the trip to that point. And on some days, like this night, I sure got my money's worth of precipitation. My Toyota Tacoma was my best friend, not only getting me to all of these amazing locations, but also protecting me from Mother Nature's elements.

Northeastern Montana consists of relatively intact prairie and a lot of wild, undeveloped land.

Day 11: A Gumbo kind of Day at American Prairie Reserve

I was rearing to go at 5:25am on June 28 when I woke up to clear skies and a pretty dawn at the rest area off Route 2 about 15 miles west of Glasgow, MT. I was curious to what I missed the previous night in the torrential rain so I drove 5-6 miles back to the east. I stopped at an interesting Buffalo Country sign. The mosquitoes were terrible. It was like they woke up after the rain to lay their eggs and all of them in Montana happened to be at that one pullout.

I found irony in that sign. Early settlers killed off lots of wildlife but in the decades since we have recovered many of them. Despite the respect the sign shows toward the Native American way of life, there are many places that Montana and other states could have free-roaming wild bison herds again. Yet the cultural, almost racist, politics prevent this from happening. Given that Montana is a relatively progressive state, currently with a two-term Democratic Governor, I would expect more from them.



Most of the drive on Route 2W was open range-land. The sun was just coming up and the surroundings were beginning to dry out from last night's moisture. I didn't see that many cattle yet again. The area looked more wild, similar to my drive the previous day. I drove straight to Malta, MT, arriving at 6:56am. I saw 4 mule deer right in the middle of yards in Malta as I drove off the main highway to fill-up at a local gas station. Of all the places to see my first ungulates of the day after driving about 60 miles through rural country, that sure was an interesting location.

I found an Albertsons supermarket which gave me the best Wi-Fi service in the area. I had wasted over 20 minutes before at hotels and other stores searching for a signal and then realized that supermarkets are a good reliable place to find more than just food! I spent well over an hour on my phone having to respond to some messages and read some articles. Such is life in the modern world!



Mule deer in Malta, Montana, the gateway to American Prairie Reserve.



American Prairie Reserve (APR) is not a national or a state park but, instead, it is a private non-profit that is buying up land from willing ranchers that want to sell. The goal is to build up a contiguous area of protected land to eventually build one of North America's biggest wildlife preserves.

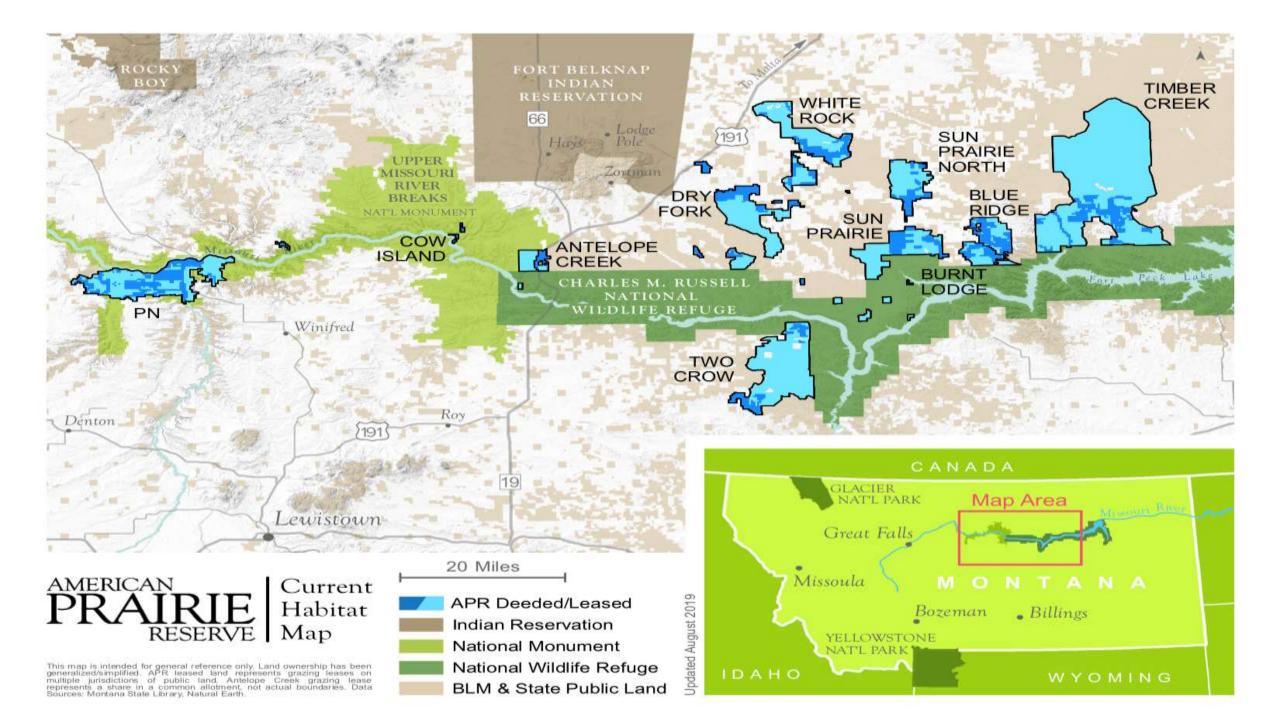
APR <u>describes on their website</u>, "Thanks to donors across Montana, the U.S., and the world, American Prairie Reserve purchases private land to connect the pieces. These parcels often come with grazing privileges on adjacent public land, opening the landscape even more to wildlife and people. In this way, American Prairie Reserve is assembling a large landscape that is a patchwork of ownership, but seamless as a prairie ecosystem."

By 2020, they had built up a habitat base of 419,291 acres of which 104,244 are private lands owned by APR (called "deeded land") and 315,047 are public lands (federal and state) that are leased to APR. In an interesting twist to most peoples' knowledge of land transactions, in this region when you buy a ranch it often comes with public land (often Bureau of Land Management owned land) that greatly increases the size of your property, often by three-fold. On the public land, you gain exclusive rights to graze your cattle but the public is welcome to use that land for recreation activities like hiking, wildlife watching, and hunting. The public is still paying taxes on the land where the rancher has exclusive grazing access.

One of the things that is very apparent about APR's land purchases to date (see map on next page) is the checkerboard of land that APR owns. They only buy land from willing sellers so the map clearly shows areas that would be perfect for purchase as they would connect their properties to other protected lands.

The drive to American Prairie Reserve. The Y in the road took me onto Regina Road for the next 30 miles.





I departed Malta at 9am and began the drive to APR. I downloaded the directions from their website before I left for this trip. They were sort of old school with mile markers and landmarks as a guide. The first 4 miles were a breeze as the street was paved but then Regina Road became all dirt and I quickly found out that it was still very muddy from last night's rain. As I turned right at a fork in the road at the Y intersection, I was to take Regina for 29.7 miles until I arrived at a T-intersection. This was the most important set of directions and I reset my trip odometer to ensure a precise distance was traveled.

Regina Road quickly became a challenge because of the slick conditions. While the road looked decent from a distance it turns out that after a rain the bentonite clay soil becomes really slick and acts like quick mud as it expands in size. Just like driving on black ice in the winter, I found my car losing control as I repeatedly slid to one side of the road, feeling like I might flip over. It was an extremely unnerving feeling.



The term for this unique clay is 'gumbo' and I experienced this a little bit back at Buffalo Gap National Grasslands on my way to the Badlands. But there it was just a minor annoyance on the paved thoroughfares. Once I got to a dirt road that was slick and had mud sticking to my car and my boots, I simply just turned around and got back to the pavement. Most of the hiking trails that I was on were well maintained so I didn't worry too much about mud and clay. So, essentially APR was where I had my first real experience with gumbo aside from the quick detour near Minuteman Missile National Historic Site.

Naturally this lack of control of my vehicle got my heart racing as I was totally in the middle of nowhere. I tried to relax and appreciate the ride, which I did at times, but I definitely had the most anxiety of the journey to date.

Along the way I saw 2 prairie grouse on the side of the road and many morning doves sitting on the barbed wire fences. Beginning the drive, I suspected I would see pronghorn in the open prairie and that prophecy came true with me seeing a group of 8 with 3 young, and sightings of 1-2 here and there. I didn't see as many as I might have guessed but I also knew that this area was a mixture of private and public land so there was human access for things like hunting.

I was very surprised with how many wetlands there were in this area. I frequently drove downhill to a bridge and then had to go back up in the gumbo, which was a nerve-wracking experience every time. Because of all of this water, I spotted many bird species including white pelicans, sandpipers, godwits, and ducks. I also saw some hawks and even an owl that took off from a fence post during daylight. The familiarity of observing wildlife relaxed me a little.

There is no question that the story of those first 30 miles was gumbo. I just couldn't get my mind over the fact that clay expanded in size that much when it got wet to create such hazardous conditions. The few cars that I passed were covered in mud. It was obvious that the locals were used to this and it was a part of their life after it rained.

When I got past the 29.7 miles on my odometer, I became nervous. I passed a road to the left but I just assumed it was a driveway. After I went a half mile further, however, I turned around and went back to that road, nervous I might have missed my turn. There was a sign right at the road intersection about 'Saving a Cowboy' but I wasn't really sure what it meant at the time.

That side road was awful with deep ruts of mud. Those grooves were actually the only thing that kept me from sliding off the road. After about a mile I got to a dead end and there was an old house with an ATV and a run down car in front of it. It was at that moment I realized I was on somebody's property and was right in their front yard. Immediately, I wanted to get out of there.

I turned around and picked up speed going uphill and managed to leave that property, only because I engaged my truck in 4 wheel drive. When I got out of that long driveway and back to Regina Road, I realized that the sign I saw was an anti-APR sign. In other words, that cowboy did not approve of selling his land to become part of the wildlife reserve.

After getting back on Regina, it took me about 2 miles to get to that T intersection. It turns out that the first set of directions should have said about 31.5 miles, not 29.7!

I took a left to head east, still on Regina Road. I knew I was on the right track and my nerves dissipated a little. Along the way I saw a deer in some tall grass as I neared APR lands. Unfortunately, the last part of the journey was the worst. I had to be in 4WD for most of the last 5-6 miles of this escapade as the roads in APR were terrible. But as I made it further I realized I was approaching the destination as signs indicated I was entering APR lands, and the directions now matched where I was.

I knew as I was experiencing it, that this was the most extreme place I had ever been as well as the most adventurous thing that I had done to date in my life. That makes sense since it really is one of the most remote places in the lower 48 states. It ended up being 50 miles of dirt roads with just signs and landmarks as my guide from Malta, which was already a very rural locale. The massive amount of recent rain, and the resulting gumbo, just topped it off.

A very slick, gumbo section of Regina Road as I passed over a small pond on the prairie.

Not only did this 'gumbo' create a lot of mud but it was extremely slick, like black ice on a road in winter.



Tire tracks underscored how slippery the roads were. Tires coated in mud did not help the drive. Pronghorn on the prairie.

I did not see as many cattle as I thought I might before arriving at American Prairie Reserve but they were certainly there.



White pelicans and a road-killed hawk along Regina Road.



Anti-American Prairie Reserve signs by local ranchers who don't support the conservation initiative. The ironic part of the "No federal land grab" sign is that they no doubt are grazing their cattle on tax-payer subsidized federal land.

Don't Buffalolle NO FEDERAL LAND GRAB!

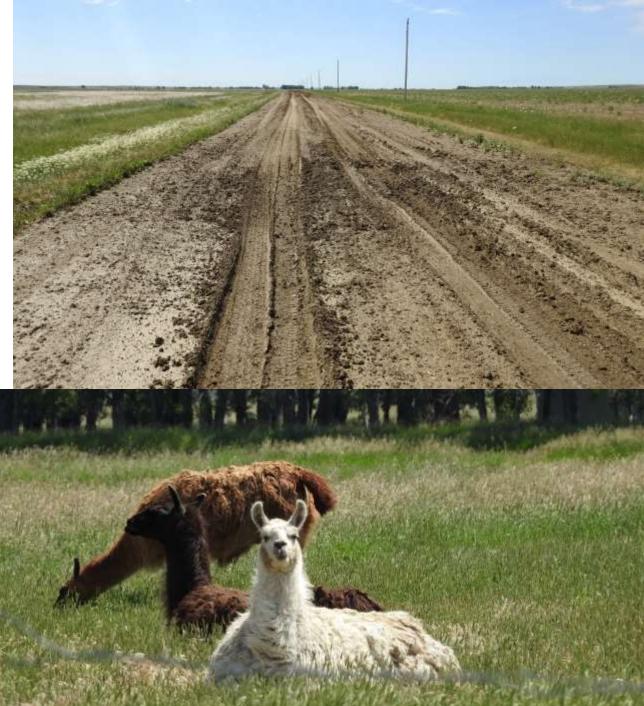




www.upomit

Approaching American Prairie Reserve with continued slick roads. Llamas were present between two of the APR properties.





Entering the Sun Prairie Unit. This area is the core part of American Prairie Reserve which includes a campground, its field headquarters, a bison herd that moves freely through the entire 31,000 acre property, and its southern border being shared with the expansive Charles M. Russell National Wildlife Refuge.



Box Elder Crossing, an old road that is now a hiking trail, and Buffalo Camp, a public campground, are two of the main features in Sun Prairie. This is where I spent the majority of my time while at APR.



Buffalo Camp was deserted when I arrived there around 11:30am. I planned on staying there but since nobody was present I figured I would come back after exploring the area.

My 'gumboed' truck and a sign in the campground describing dangers of the area.

& Visiting the RESERVE

REMOTENESS

The Reserve is a remote nature area filled with wonders that are also potential hazards. There is no guarantee of your safety and you are welcome to access APR lands at your own risk. There is limited cell phone coverage across the region.

WEATHER

Weather in northeastern Montana can fluctuate dramatically from year to year and even from day to day. We suggest that you be prepared for a variety of conditions, including traveling with rainwear, warm clothing, sunscreen, and a wide-brimmed hat.

ROADS

Reliable, four-wheel drive vehicles with high clearance are necessary. Flat tires are common, so please do not drive off of designated roads. Wet, unpaved roads in Phillips and Valley Counties can also become impassable. The region is famous for its "gumbo," the result of expandable clay sediments that become slick and greasy with precipitation. Traction is nearly impossible, whether in a vehicle or on foot. Take extreme caution and be prepared by bringing along extra food and water as you travel around the Reserve.

ANIMALS

Do not approach any animal, including bison, and view from a safe distance. Please pay close attention to your surroundings to avoid contact with rattlesnakes, the only poisonous snake in the region.

POINTS OF INTEREST







I arrived at the Enrico Education and Science Center right at noon. I wasn't sure what to expect. Everything was unlocked and open, yet the large building was more of a field station than a visitor center. For example, there was not a gift shop to purchase anything. Yet it was beautiful with a spacious kitchen, living room, and a weight room in the basement, which was crazy to consider given where I was. They had Wi-Fi too which was nice since I could stay up-to-date on personal matters while in the area.

One of the first things I noticed was how much food was there. It was all over the place plus 2 large refrigerators were fully stocked. After a few minutes of being alone and looking around the place, I met a young women who was doing laundry. I introduced myself and said I was a biologist by training but was just here visiting. She welcomed me to make myself at home.

It turns out that a large National Geographic film crew had just left the premises and a new group was planning on arriving later that night. Hence all the food! She mentioned that she was a seasonal employee and was cleaning up after the crew. She also stated that there was an open door policy there. If you could get here, you were welcome!

I spent a few minutes scoping out the place. They had some great maps of the preserve – one of them was free to take – and many books that interested me on the cultural and natural history of the region. I skimmed through a few of them.





The Enrico Education and Science Center was a beautiful, spacious structure designed to accommodate large gatherings of scientists and adventurers to the area.







At 2:30pm, I arrived back to the campground which was about a mile north of the Enrico Education and Science Center. I noticed a herd of bison in the distance to my west but it was hard to see them as I did not have a good angle and they were in a low part of the landscape.

The campground was primitive. They had electrical hook-ups on about half of the 14 sites but none of them worked so I couldn't charge my gear. I had been charging my cell phone, electric toothbrush, and camera in the car or at visitor centers and other places where I went but they all could've used a couple of hours of dedicated charging time. No dice though. There was no water in the wells either so I knew I would probably head back to the science center after I explored the area to get water, and maybe cook dinner on an actual stove, not my camp version.

There was a trail at the back of the campground that led out to a prairie dog town after passing by a stream with dense vegetation along the water route. This obstruction of cottonwoods and other trees prevented me from really seeing the area until I passed by it. The map said that it was a one-way 1 mile trail.





At 3:10pm I finally started the hike after poking around the actual campground. It was 80 degrees and sunny. I wore a bucket hat to try and keep the sun's rays at bay. The trail was constructed about 10 years prior and it was overgrown, so much so that it was difficult to follow. Accustomed to tricky hikes, I memorized the route of the trail on the map as I walked. I used the stream crossing as a good benchmark for where I was going.

There were also informational signs on the hike and I could see two of them as I went. The last one was on prairie dogs. While I surely didn't take the prescribed route since the trail was no longer there I was able to find the end point of the hike and arrived at a beautiful view of the prairie dog colony. I continued past that sign and walked across the flats through an abundance of prairie dog burrows.

I went another half mile west to the foothills where the prairie went up a ridge checkered with sagebrush. I was shocked how much water there was in the area. There were pools everywhere and part of the restored prairie had some old canals which retained water, no doubt a relic of cattle having lived there previously.





A good illustration of one of the many wetlands dotting the prairie landscape.

Given all of this standing water, the mosquitos were terrible the entire way and I wore shorts and a T-shirt because of the heat. I jogged at some stretches to escape the hungry blood-suckers. Prairie dogs were literally everywhere in this roughly 1 square mile huge dog town. Off in the distance to the north I also saw about 75 bison, and the further west I went, the better view of them I had. Some of them were calves, and when I zoomed in with my camera I noticed just how many there were. Given the incredible 83X zoom of my camera, I stopped hiking with binoculars and instead used the powerful optics of my electronic gear instead.

The main purpose of American Prairie Reserve is to restore natural conditions to this stretch of the country and prairie dogs and bison were the major ingredients to achieve that plan. Walking through a prairie dog town and seeing bison off in the distance made me feel like I could be traveling with Lewis and Clark's legendary expedition of the early 1800s.

I continued to follow old dikes and canals to my west which made it easier to navigate the terrain while I was off-trail. There were numerous burrows in the dry clay, literally all around where I was hiking. The small wetland pools also attracted shore birds including mountain plovers, a close relative of the piping plover that I frequently see off the coast of Cape Cod, MA, and killdeer which are also back east. Killdeer are a shorebird species more adapted to live inland in open, arid areas like ball fields or prairie dog towns. Their loud plaintive high-pitched "kill-deer" calls echoed across the landscape.

I jumped a coyote in the prairie dog town just before I reached the foothills. I couldn't tell if it was bedded down or hunting for those large rodents, but it ran northwest into the sage and eventually disappeared in the rolling terrain. The bison were also feeding and slowly moving north. They clearly knew I was there when I started climbing the hills to my west. They were about a quarter mile away at that point, the closest I had been to them.



Black-tailed prairie dog town. I continued well past the sign (bottom) marking the end of the trail and went all the way to the foothills off in the distance.



SEEMING

The prairie dog town went all the way to the foothills.

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in The real

Elevated canal from prior human use. Burrows dotted this area of low to no grass which give prairie dogs a good vantage point of the surrounding area.



Coyote scat (left) filled with grasshoppers and other insect exoskeletons indicated that they ate more than just prairie dogs and other rodents. This coyote observed in the prairie dog town first ran through tall grass (lower left) then stood on a mound to look for danger (bottom right).



I reached a chain-link fence divider as I climbed the hill west of the dog town. I went under it and hiked well uphill to the ridgeline. The bottom wire was elevated off the ground and was smooth, indicating that it was specifically designed for wildlife. Pronghorn aren't designed for jumping so they often go under fences instead. Wildlife friendly fencing is critical for them.

I was certain that I was still on APR property judging from the map and was surprised to find a fence there as the reserve has done an admiral job of removing miles upon miles of interior fencing on their properties. There were many cacti up on these hills no doubt because it was drier and the soil retained less moisture compared to the bottomlands. As I climbed in elevation, I stepped on one and had to remove the burrs from my left shoe. Being out in nature for 11 straight days definitely increased my pain threshold as a potentially major event of getting quilled by a cactus was only a minor inconvenience for me even with blood filling my sock around my big toe.

Toward the top of the ridgeline, where I finally had a satisfying view of more prairie to the south and west, I decided to turn around. Right at that point something jumped in front of me causing my heart to race. Racing through sagebrush, it was a jackrabbit! Jackrabbits are actually hares, not rabbits, but they are closely related. Hares are larger and have ridiculous long legs and ears. It looked huge to me compared to the eastern cottontail rabbits I frequently see back east. Jackrabbits are really fast and this one quickly ran south under the fence and went into another pasture. I was curious about this fencing and wondered if the APR team was hoping to remove it in the near future.

I spied a bull bison to the southeast about a half mile off but in that same pasture where the jackrabbit had ran. I had a commanding view and could now see the field station about a mile to the east and could see well to the south, probably into the Charles M. Russell National Wildlife Refuge.

At that point I decided to hike back to the campground. I had a good line-of-sight visual of the route I was going to take. To save time, I jogged for a good portion of my return, gliding down the rolling hill then by all of those prairie dog burrows dotting the flats with their owners nervously watching me go by. I also jumped another coyote in the flats and this one looked to be a different individual than the one from about a half hour before. I was dripping in sweat but the mosquitoes weren't as bad since they had to keep up with me. Nevertheless, I was repeatedly swatting my neck and calves, which are mosquito hot-spots on an exposed body.

The bison herd was to my northwest from that angle. I was fascinated with them expecting that I would get to 'spend more time with them' on this trip. <u>American Prairie Reserve</u> restored bison to this region of northeastern Montana in 2005 with the import of 16 animals from South Dakota's Wind Cave National Park. It was pretty cool seeing those bison on APR land knowing their ancestors from a few days prior, especially the one who treed me! Bison had been driven from northeastern MT for more than a century. Since then, births on APR as well as additional imports from Canada's Elk Island National Park have increased the population to more than 800 animals. This herd is now the largest in the Great Plains that is free of cattle genes. APR's ultimate goal is to maintain a herd of at least 10,000 bison, which would make it the largest conservation herd in North America.

Taking a direct route back to the campground, along with jogging, I returned to my vehicle at 5:26pm. I tried to obtain water one more time as all my bottles were nearly empty, but none of the spigots worked. I did manage to jump a green racer snake near the pipes of a water source. It disappeared before I could really see it. It sure was fast.





Bison herd in the Sun Prairie Unit of American Prairie Reserve.



The Enrico Education and Science Center as seen from the ridge of the hike where I turned around. It is just a speck on the vast prairie.

Jackrabbit running under a fence as I hiked up the foothills west of the prairie dog town. This picture clearly shows the rolling hills that are seemingly endless.

Location where the second coyote was observed. This was on the return back from my hike.



Coyote nonchalantly trotting away after assessing me.

After the hike, I decide to head back to the science center to fill up with water and see if anybody was there. On my short drive back, I stopped short as there was a 4+ foot gopher snake on the dirt road. It was my first sighting of this reptile that is adapted to the prairie country where I stood. What a fascinating looking animal that I identified through a field guide I brought with me. They eat mostly rodents and are harmless to people.

I arrived back to the Enrico Field Station at 5:45pm and chatted with a researcher conducting work on the preserve. <u>Hila Shamon</u> is a landscape ecologist and mammalogist at the Smithsonian Conservation Biology Institute's Conservation Ecology Center. She studies bison and prairie dogs to better understand the role of those ecosystem engineers. Shamon tracks bison movement on the preserve via GPS radio-collars.







Panoramic views from near the field station.

After a week and a half on the road, it was refreshing to talk with a fellow scientist. I told her about my sightings from the hike and she was legitimately interested in them, especially the coyotes. I asked her a bunch of questions on bison and found that reading the information from their website before coming out there was a pretty accurate rendering as to bison restoration. Frustratingly, APR has not yet received permission to graze bison on all of their properties which seems incredibly hypocritical given that they could freely allow cattle on their lands if they wanted. In fact, Sun Prairie is the only unit where bison have full access. On other units, they only are allowed to use APR's deeded land.

After our conversation, I filled up my water bottles and cooked dinner in their kitchen. As I finished eating, Hila came back to the building as her home was just across the driveway, the only other house within miles. She could see how grungy I was and welcomed me to use the field station's shower which I gladly accepted.

I basically had to take two showers! The first was to remove the grime from my body, and the second was to actually get clean again. It felt amazing. Taking a shower is one of the things that I always most appreciate about modern conveniences after returning from a camping trip.

I was going to head back to the campground after I bathed, but there was a tornado warning that evening. Luckily, Hila informed me about the severe weather. Soon after, I started to see lightning to the west. She recommended that I stay at the field station for the night as the weather was going to get bad. The crew that was supposed to arrive that night cancelled knowing that the roads would be too difficult to travel. She pointed out an available room and I gladly took her up on the offer.

As the weather rolled in I watched a movie on my phone on the outdoor porch after summarizing my field notes. It was nice to relax for a change. I took out my earbuds at 7:45pm as I heard coyotes howling in the hills to the east verifying that there was a pack in the area. It was a comforting sound for me as the creature lives coast to coast and makes their presence known in just about every habitat in the lower 48.

At 8:10pm, Hila and her assistant, Zoe, came back over from their house and advised that we go into the basement as the tornado warning was now for the immediate area. Within a couple of minutes, it started to downpour, harder than I have ever seen. It was driving wind and rain from the west. But, amazingly, after 30 minutes it died down and soon enough we saw the sun peak out from behind the clouds. Talk about a fast moving storm! I actually saw the sun set behind the horizon at 9:12pm.

It was a crazy night. Because of all the rain I didn't have a choice but to stay at the field station since the roads were going to be filled with gumbo. I ended up watching more programs on my phone and didn't go to bed until 11:00pm, which is late for me. It surely was an adventurous day, to say the least. And I was now 11 out of 11 for having days with rain!







Day 12: Stuck in Mud then on to Yellowstone



I slept soundly that night which was not surprising considering it was my first time not sleeping in or on my truck in 11 days. At 6:15am on June 29th, I arose to the sun already in the sky. I immediately looked outside and saw that the roads were even worse than yesterday. There was gumbo everywhere! I knew I was going to be stuck here for a while. The clay can expand up to 10 times when wet, but there was so much water not all of it had been absorbed yet.

From 7:00-8:10am the ranch dog 'Otis' and I hiked east on and off an old one-lane dirt road. I started the hike spur of the moment as I originally went outside to look at the weather. I didn't bring my camera or phone to document the trek.

Parts of the hike were treacherous. The mud was as thick as wet concrete and I often sunk 6-8 inches into it, covering my entire (and only) pair of boots. I couldn't even imagine what the 5 mile stretch of road leaving the property was like.

Otis and I hiked all the way to a really neat looking pond and then a legitimate sized river appeared with towering cottonwoods gracing its banks. The dog was flying around the area, up and down hills. It was amazing to watch. There were also pools of shallow water everywhere. Otis just crashed through them. I had to navigate around them to avoid getting completely soaked. Because of all this water – and the time of the year – there were calling amphibians everywhere all over Sun Prairie. It was fantastic.

But in this terrain I couldn't gain my footing. I consider myself pretty athletic, having competed in Division 1 Track and Field in college. I still play in competitive basketball leagues, sometimes against players half my age. Yet it was a different world trying to move around with gumbo saturating the landscape. I often had to walk on plants and roots, including grass and sagebrush, just to maintain purchase and not sink into the mud. But having the stubbornness to explore new land was a helpful 'talent', along with natural endurance.

Around a corner of the trail covered with sagebrush, we flushed a female grouse and 4 young just off the main road. Shortly after, we arrived at a mini-junkyard area with old pipes, railroad logs, and miscellaneous wood. I saw 2 cottontail rabbits right near there. I had no doubt that they hid in all those structures to stay safe. I also saw fresh bison tracks in the mud which finally led to the actual animals when I saw one, then two, then two more bison once I got up higher in elevation and had a better angle to see them. This was about a quarter of a mile past where that old road ended and I bushwhacked to the top of the hill.

The small herd of bachelor bulls watched us from about 100 yards away including Otis gliding over the mud. They were moving along south to north as we went roughly west to east. I made sure to give them a wide birth especially considering the pools of water which forced me to travel off the meager trail that I was on.

I arrived back to camp at 8:10am with 2 killdeer chasing me away on the driveway off the main road. They must have had a nest I didn't know about because they wouldn't leave me alone for the entire quarter mile stretch of road. As I got back to camp, I was frustrated that I didn't take my camera with me. That beautiful hidden river and the towering cottonwood trees will stay forever in my mind, but not on film. Killdeer leading me away from the pair's nest area (below); bison track on drying mud (right), and ranch dog 'Otis'.





When I arrived back at the Enrico Education and Science Center, Hila informed me that the crew was not coming on this day either. The gumbo was just too bad. She also said that more weather was supposed to come in later in the day so my window for leaving might have to be this afternoon. I had mixed feelings as I spent an incredible amount of effort to get to this place but with the road conditions as they were, it was hard to do anything or travel anywhere. I honestly felt trapped. Plus, my next destination was Yellowstone National Park and I hadn't been there for 3 years up to that point which was my longest gap in visiting the world's first national park in 15 years!

I learned that the field crew at American Prairie Reserve basically doesn't do any work after it rains. It is just too hard for them to move around and accomplish their objectives. That was new to me. A snow storm, extreme cold or heat, or even heavy rain and winds were obvious reasons to not do field work, but I had never even considered the *day after rain* to be a difficult time to work. But here on APR it definitely was.

It is important to take positives out of negatives and one of the benefits of literally being trapped at the field station was that I could do a load of laundry, my first of the trip. I planned a lot for the trip, especially in regards to directions, food, and where and when to fill-up my water containers. But I was totally winging it on laundry. I considered asking friends to let me use their machine when I got to Yellowstone or to just wear the same clothes for 2-3 days each and hope I had enough to get home. So, I gladly took the opportunity to improve my hygiene. I helped fold the towels and sheets from the Nat Geo crew that left the previous day and then washed my clothes. I also took another shower to get me most likely to the end of the trip.

From 9:15-10:15am Hila, Zoe, who is from Greece, and I made breakfast. As I mentioned yesterday, the crew left tons of food and a new group wasn't coming at all this weekend. I was welcomed to eat all that I could. And that I did. I full gorged myself and likely gained a couple of the 5-10 pounds that I had already lost on the trip from my massive daily energy expenditures. We each had multiple eggs, a huge bowl of salad, and two fruit items. I saturated my eggs with cheese to try and obtain as much fat as I possibly could in a meal, a great problem to have in modern society!

I also took some non-perishable food with me, which paired perfectly with the food I had left. I knew I had a week and a half left on the trip and that was just about the rations I figured I now had in the tote boxes in my car.

A late morning check of the area with Otis, the ranch dog, showed that the driveway leading to the field station was drivable, but the main road leading out of the preserve clearly was not. Note the bison tracks in the mud.



While at the science center, Hila mentioned some really interesting things happening with APR:

- Grizzly bears have made it to within 70 miles of the nearest (western) property, the PN unit.
- A wolf was shot near Glasgow, MT that previous winter so basically past (northeast of) APR lands from the Yellowstone region.
- Bison roam Sun Prairie (~400), Dry Fork (100-150), White Rock (100-150), and Sun Prairie North (~80) for a total of 43,600 acres but Sun Prairie is the only place where they live on both deeded and leased land. The Bureau of Land Management, to date, has rejected applications for public lands on the other properties including their huge unit, Timber Creek. I found that outrageous and incredibly hypocritical for a region that prides itself on personal choice and minimal government.
- The scale of the property is unbelievable. It is a 2-hour drive in both directions from Sun Prairie to get to their farthest properties. So it essentially takes them all day just to visit those places let alone do anything there.
- Most mountain lions in the area stay on the Charles M. Russell (CMR) National Wildlife Refuge and don't really leave the timbered areas.
- She doesn't observe a lot of wildlife on APR lands which allow hunting. I had read about an American Serengeti but clearly the area needed more time to grow its wildlife populations. In my view, the properties needed to be connected together through additional land purchases to get some continuity in land preservation.
- A lot of wildlife is observed at the nearby Fort Belknap Indian Reservation to the northwest as the tribe there manages their wildlife for a greater abundance of animals.
- After rain they typically don't do any research because of the gumbo. I still find that fascinating.
- APR is gathering baseline data for the future when they acquire more properties and larger animals (including wolves and bears) return to the region.

From 10:30-2:30pm I got caught up on reading, writing, and computer/phone stuff. It was very relaxing and, although I like to go "balls to the wall" as my Dad always says, I needed this mid-trip reprieve. I was so appreciative of Hila's company and information that I gave her a copy of my book, <u>My Yellowstone Experience</u>.

After thanking Hila profusely, I departed camp at 3:08pm. The roads were finally drying and we definitely confirmed that more rain was coming later that day so hightailing it out of there before I got trapped was advisable. Shortly after passing the campground I went about a half mile north, stopped at Box Elder Crossing and followed it on foot for about a half mile in each direction. The footing on that mile hike was much better than what I experienced a few hours before.

I cleared a couple of ridges to get a view and saw a bison herd of 25+ animals on a ridge about a mile farther east. It was a special sighting of these most magnificent beasts finally living out their lives in a little slice of the Montana prairie. Hopefully one day soon it will be many more over a larger area. I also spotted another prairie dog town with many active animals, which is always a special sight.

I would have liked to follow the Box Elder dirt road past that point but turned around and went back to my vehicle. I needed to get out of this maze of dirt roads before the storms revved back up. I found that the first 5 miles of road wasn't great, but it was manageable and I was used to it from the previous morning's drive. Fortunately, for me that would be the most difficult section of the trip to get to Route 191 to head west off APR lands.



Prairie dog town viewed from the edge of road on the drive out of APR lands. I was going to miss being in the presence of these animals. I knew I only had a few minutes left with them before driving to Yellowstone, which does not have a population of these animals.

An old one room school near Buffalo Camp and Box Elder Crossing Trail.



Box Elder Crossing trail perspective with water bodies in most lowlands and cacti and bison scat on a ridge (bottom right).



There were miles upon miles of open prairie on the Box Elder Crossing Trail, with a bison herd at the horizon way off in the distance.

100

Bison herd viewed when zoomed in.

yote tracks drying to cement in a rapidly evaporating puddle.

I took Regina Road back to the north and then west but at that infamous T intersection from yesterday I continued straight to head west, instead of taking a right from where I came yesterday. That path put me on Blunt Cutcross Road to Midale (called Middle on my map) Road to Dry Fork Road where I crisscrossed through public and private lands, and a little more APR property (Dry Fork). I got going pretty good for a while and averaged 35-40 MPH on some stretches. Yet it still seemed to take quite a while to get off those dirt roads. I kept marveling at the enormous scale of this region. It took forever to get anywhere.

My windshield became filthy from all the bugs that I hit. Even after cleaning it with wiper fluid it would only take minutes to get dirty again. I saw a road-killed gopher snake, 2 dead cottontails, an alive pronghorn doe and her fawn, and lots of cows. Clearly parts of this area weren't quite ready for bison and APR just yet! It was 5:30pm when I finally got to Route 191. My plan was to drive south through the western part of CMR National Wildlife Refuge after I went through the eastern part 2 days before.

I stopped at James Kipp Recreation Area at the border of the 'CMR' and Upper Missouri River Breaks National Monument, a 375,000 acre protected area. The Missouri River at the recreation area was very silty so I didn't swim despite the sunny weather and heat. It was a nice place to have dinner. My plan was to just drive as far as I could and try and get close to Yellowstone by nightfall.

Prairie dog town next to Regina Road.

A driver's eye view through a dirty, bug splattered window. I had recently cleaned the window with wiper fluid. I share this picture to show that it isn't all rosy even on a sunny day. It takes work just to see out of the car in late June when insect activity is at its peak. Signs as I drove west on dirt roads toward Route 191. Road-killed gopher snake (below left).

MIDALE ROAD DRY FORK RO HIGHWAY 191 REGINA ROAD Dry Fork Road was easy to travel on and did not have nearly the amount of gumbo that I experienced on APR lands and Regina Road. There were still locals who didn't approve of the monument which no doubt influenced the Bureau of Land Management's decision to not allow bison onto some of APR's lands.

Cattle

One of many herds of cattle observed on my drive out of American Prairie Reserve.

I was able to get this 'drive-by' photo of a pronghorn and her fawn while I was going 38 MPH on Dry Fork (dirt) Road.

A welcome information sign describing human uses of the area as I reached the junction of Dry Fork Road, Manning Coral Road, and Highway 191.

and the second

View of part of the Charles M. Russell National Wildlife Refuge and Highway 191



My truck with caked on clay (gumbo) stuck to the frame. Panoramic view of the Missouri River from Upper Missouri River Breaks National Monument.



NATION 1 CONSER ADON I left the recreation area at Upper Missouri Breaks National Monument at 6:30pm and was focused on covering ground in the next few hours. From there I drove straight to Red Lodge, Montana, via 191S to 19S to 87S to 90W to 212W which brought me to the edge of the Greater Yellowstone Ecosystem. I saw just a few deer near the road, some pronghorn in fields, and then had a bizarre sighting of 3 very brown bull elk in a wide open agricultural field near 'Bohemian Corner' where Routes 191 and 19 meet. There were many cattle on the other side of the road making the elk sighting even stranger. They looked out of place there.

The strangest sighting was a mouse that came up onto my windshield at dark while I was on the highway. It shocked me to say the least. I probably picked up the hitchhiker in APR and it waited until dark to get active. I was now a couple of hundred miles away and couldn't do anything about it. It made a few appearances on the drive and I got used to it a little more after repeated exposure but it was still creepy having a mouse walking on my windshield. The truth was, I was laser focused on getting to my intended target and the mouse actually kept me stay awake and alert, not necessarily a bad thing as it became dark out.

I gassed up in Red Lodge, Montana at 10:08pm and drove up the Beartooth Highway. This road goes over the Beartooth Pass at 10,947 feet as it essentially goes up and then down the Absaroka Range. This is a very hilly, windy road that is a challenge during the daytime. To do it at night felt a bit crazy. Luckily I had been on the road numerous other times and was familiar with its twists and turns. Plus, the lack of other vehicles on the road at that hour was helpful.

I took a bathroom break at the top of the mountain at a scenic pullout in the pitch dark. I was there for about 15 minutes and wondered if the hitchhiker decided to make a run for it and leave my warm engine for some of the wildest mountain country in the lower 48.

I decided to continue on down the mountain. The air was super clear and it was now getting colder, falling into the 30s. As I climbed to the top of the pass I couldn't believe my eyes. Snow was everywhere and there was still a wall next to the road. It was just a few minutes from the last day of June. Most areas of the country don't get that much during mid-winter!

It felt like it took forever to get down the mountain as I was exhausted. It was surreal driving by 10 foot drifts in places, but that and the cool mountain air kept me awake. I pushed through. At 12:05am, just into June 30th, I saw a red fox on the side of Route 212 on my final descent into the quaint little community of Cooke City, MT. I was here. I made it to Yellowstone where I would spend the next week. I had driven 349 miles from American Prairie Reserve to Cooke City and that was as direct a drive as possible considering I was stuck in APR until the gumbo dried in the afternoon. Despite the pending precipitation in northeast Montana that I left to avoid, it didn't rain on my route to Yellowstone so my streak was over at 12 days!



Day 13: My Home Away from Home



I didn't actually settle into Cooke City until 12:20am as I had to find a parking spot in town. I managed to find a quiet place near a street off the main drag where I had stayed in the past. 5:45am came quickly but I sprung up and tossed the sleeping bag and pillows in the back seat and drove to the Chamber of Commerce in Cooke City for a quick bathroom trip and to download my e-mail messages on Wi-Fi. There is no cell service in Cooke City so Wi-Fi is a must until getting about 30 miles into the park where the first cell signal is picked up in the Slough Creek area. I would read the messages later in the morning.

Before entering Yellowstone I saw a bison bull and a mule deer. A few male bison are tolerated in this mountainous area at the Northeast Entrance because no cattle are nearby. Sadly, bison are not allowed to leave the park without getting slaughtered or hunted in the north (Gardiner) and western (West Yellowstone) edges of the park. It is 100% political as bison are the only wild animal not treated as wildlife in the surrounding states even though other animals, namely elk, are more likely to pass disease to cattle.

This was my 21st trip to Yellowstone yet I never grow tired of being there. Each time I go I normally spend between 8 days to two weeks there which is long enough to get engrained in being out west. And it is certainly not too long, at least for me, of getting tired of being there – I'm not sure if that would ever happen!

I wanted to cover some ground I so drove the 20 minutes downhill and into the Lamar Valley without stopping. I did see some more bison, all bulls, in Round Prairie and Soda Butte Valley, but those neither phased me nor slowed me down. As I reached Lamar Valley there were well over 100 cow and calf bison and 6-8 pronghorn in the flats. I found some of my human friends at 'Dorothy's Knoll Pullout' in the Lamar Valley. That is a parking area that provides a commanding view of the Lamar Valley and surrounding area including Jasper Bench, an elevated plateau where wildlife is often observed.

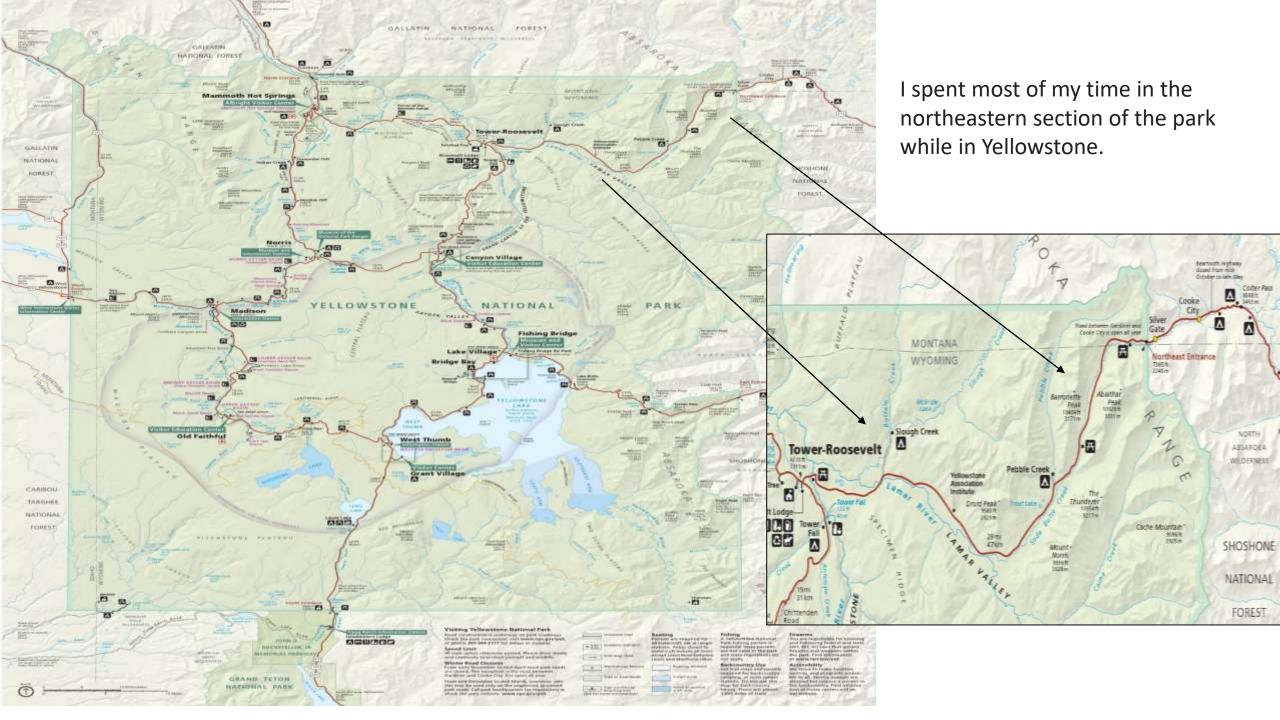
The wildlife watchers were parked and looking at a yearling, light black wolf. It was a member of the Junction Butte Pack, the social unit that used the Lamar Valley and Little America area by Slough Creek. The wolf was on a dead bison calf at the south edge of the Lamar River. There were numerous ravens at the carcass and 2 bald eagles perched in nearby trees. The wolf wandered back and forth on the river bank looking completely stuffed. After 20 minutes, it swam the river and proceeded north for a half mile crossing the main park road. It then headed northwest uphill leaving the Lamar Valley and going into what is called 'Secret Passage'.

Secret Passage is a rocky, hilly route that takes a wolf to the Slough Creek area, a place where his family had pups, his younger brothers and sisters. Although I have had hundreds of wild wolf sightings over the years, it is always amazing to be able to watch them in their natural surroundings. Yellowstone has often been regarded as the best place in the world to observe wolves. During most days in the park a wolf is seen and often entire pack(s) are observed.

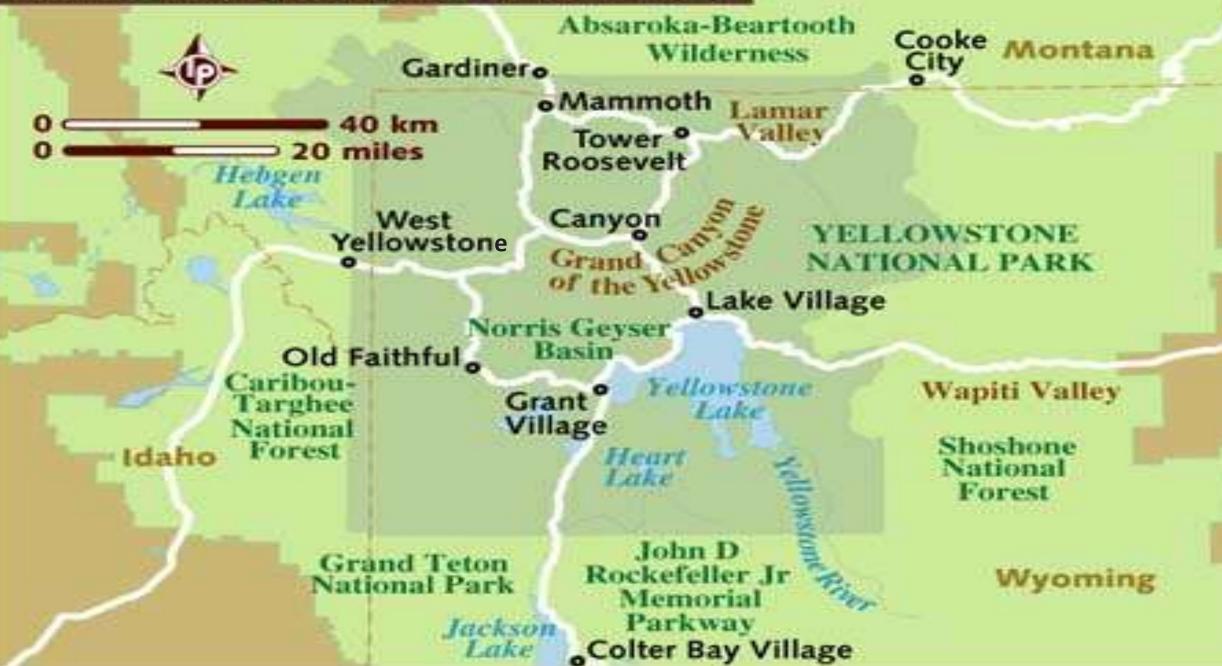
Many of us drove to the Slough Creek Campground Road to see if we could see the wolf again but we never did – it likely took a direct route to the north and fed his siblings out of our view. I only saw small scattered groups of bull bison while searching for him.

Ravens, bald eagle (on the close side of the river), and yearling black wolf in water walking to the right, and then eventually seen north of the road traveling back to his family.





YELLOWSTONE NATIONAL PARK



Bison are a common sight in the beautiful Lamar Valley with Jasper Bench, the flat top area above the trees and river, in view. I was parked at Dorothy's Knoll Pullout for this picture.

I arrived back to Dorothy's Knoll Pullout at 8:10am and there now was a GPS collared black wolf on the carcass. It was wolf 996M (male wolf, the 996th numbered wolf in the Greater Yellowstone Area), a black wolf with a light underside, a grayishblack face, and a skinny tail. He was pulling and tugging on the bison calf, as I watched from about a half mile away. That distance was close enough for a great view through my spotting scope, but far enough away where crowds of people didn't scare him off.

The bison calf was believed to have drowned during a water crossing. When it was discovered in the morning it was intact and then the yearling wolf found it and opened it up, to the delight of the dozens of ravens waiting for a big mouth (literally) to give them access to the inside of the carcass.

At 8:50am, 996M finally had his fill and traveled southwest up a game trail, disappearing on a ridge just below Jasper Bench. As he went out of sight (OOS) I scoped to the east and saw a different wolf who was looking west, no doubt at 996M. This was another black wolf who had lots of brown on its underside and neck, and a distinct black saddle.



Wolf 996M defecating on the edge of the river after gorging on a bison calf. Wolves can eat up to 20 pounds in a sitting, the equivalent of human eating 80 burgers at one time!

Section of the section

Based on the unique markings this was clearly my third wolf of the young morning. It got up and took a game trail to the north and 50-100 meters east of the one 996 took. It went to the carcass, getting there right at 9am. It fed for a short 2 minutes with its tail tucked, a sign of being nervous. It had good reason as 3 bison were converging on it from all angles. Bison often have 'funerals' where they walk to deceased relatives and seemingly pay their respects often going out of their way to push wolves off of those carcasses. It is a behavior also seen in elephants where they seem to mourn their fallen comrades. Because this was *just* a calf, the bison weren't very cantankerous and only casually approached. I have witnessed them aggressively chase wolves away from deceased adults.

The wolf fed for another 10-12 minutes and then had enough of the bison and traveled southwest, going uphill and OOS over the 'Southern Divide Ridge' at 9:24am. This ridge, similar to Secret Passage, takes an animal out of the Lamar Valley, and into the Crystal Creek area, a place within 'Little America' which is an open valley west of Lamar Valley.



Beautiful Lamar Valley with Jasper Bench above the Lamar River. Specimen Ridge is the mountain chain running parallel to the river. Pronghorn (inset) are grazing on the open flats near the river and bison (dots, center right) are also on the valley floor. The morning wolf action was in the center right part of the picture at the river. This area is a place where I have seen many wolves over the years.

After watching the last wolf travel OOS I decided to drive west and explore more of the park. It was a perfect start to my time in Yellowstone but it had been a long three years since I had been there and I wanted to see other familiar parts of the park as well. The idea immediately worked as I saw a nice, petite cinnamon-phased (i.e., brown in color) black bear up on a hill in the sage and grasses of Lamar Canyon, a ~2 mile long, rocky, hilly area that separates Lamar Valley from Little America. The bear was likely about 2 years old so was separated from its mother but was not a mother itself just yet. It was not full grown and only weighed about 100 pounds. Because of its color some might have thought it was a grizzly but the straight-faced slender profile of this young bruin easily distinguished it from its larger cousin.

Perspective of the bear up on the ridge with people watching it down along the road. After the black bear sighting, I continued west heading into Little America. I have read about a couple of derivations of this informal name. In one, Little America, an area of potholes and glacial erratics derived from one large pothole pond, has the general shape of the United States. In another, workers in the 1930s were stationed there and claimed that it was as cold as a place in Antarctica called Little America. Officially, this area is really just part of the western end of Lamar Valley.

Soon after entering the valley I got stuck in a phenomenal bison jam as the large animals went right through the Crystal Creek pullout traveling northwest to southeast. There weren't too many cars at the time but it was well worth pulling over as there were about 200 of the shaggy animals including some bulls and a really big cow alongside the road. They walked right through the parking lot, grunting and giving off their scent in the process. Some were only about 10 feet away as I hid on the side of my car to take pictures. "Wow," I noted in my field notes, which really said it all!

Panoramic of bison herd crossing the road at the Crystal Creek Pullout area.







After that thrilling experience of bison crossing the road right next to me, I continued going all the way to the Blacktail Deer Plateau about 20 miles west of Lamar Valley. I saw more scattered bison and pronghorn groups on the way, 2-3 mule deer at Tower Junction, and a radio-collared black bear walking OOS behind a ridge.

Arriving at Blacktail Plateau at 10:55am, I scoped for ~15 minutes from the Nature Trail and didn't see any wolves. This area is a common place to look for wolves and other wildlife as it provides a commanding view of the plateau. The '8-Mile Pack' inhabits, and is often observed, in the wide open rolling hills characteristic of that area. While there, I only managed to see 3 pronghorn to the southwest. The grass was noticeably green all around; perfect for the grazers.

I was a man on the move so didn't take many pictures along the way. I figured I had a week to get images and wanted to enjoy these special places I hadn't been to in a few years. I did stop at Undine Falls at the western edge of the Blacktail and was able to get some good pictures of this beautiful waterfall just a short distance from the road.

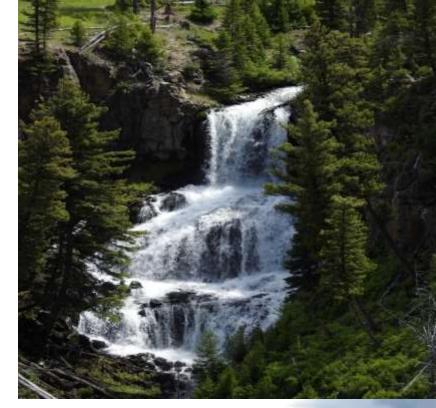
The falls are one of the easier waterfalls to experience in Yellowstone because of its proximity to the main park road. It is a result of Lava Creek dropping roughly 100 feet on its way toward merging with the Gardner River in Mammoth Hot Springs.



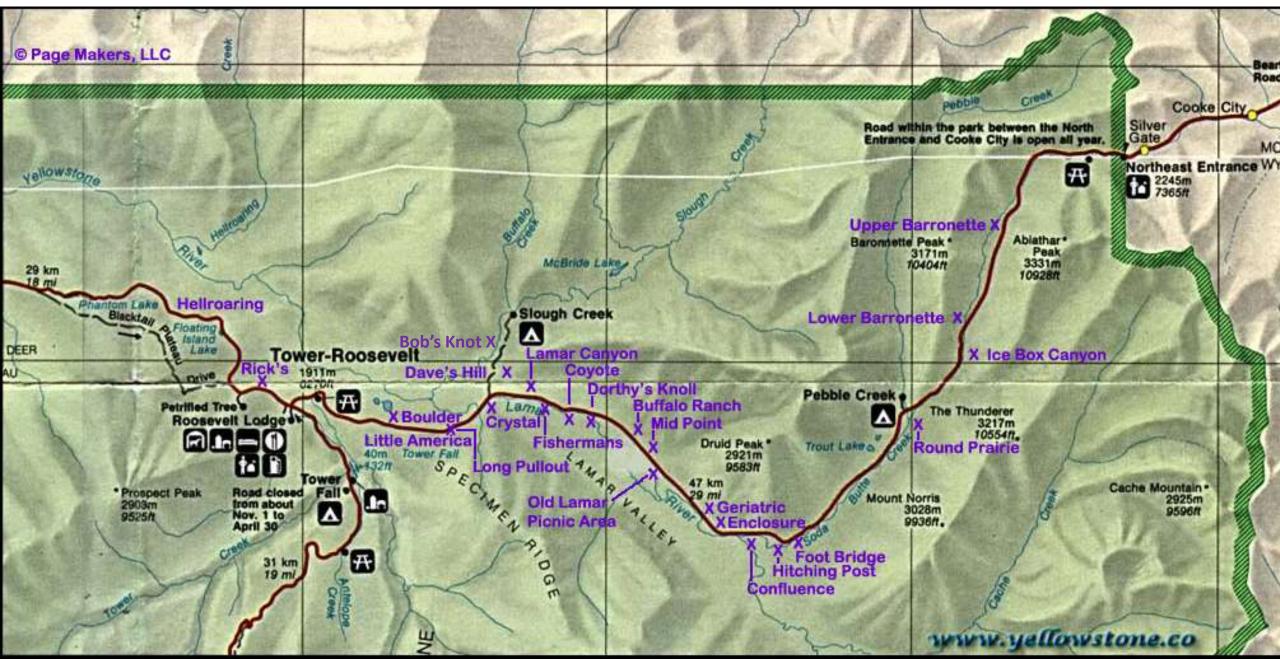
Undine Falls



Undine Falls and Blacktail Ponds at the western portion of the Blacktail Plateau. During winter bison often fall in these ponds and drown, providing necessary food in the spring when the lakes thaw and grizzly bears emerge from hibernation ravenous.



Place names of locations in northern Yellowstone. Purple indicates pullouts/overlooks where I and others stop to observe wildlife. The Blacktail Plateau is to the immediate west of this map.



I left Undine Falls at 11:42am and decided to go to park headquarters at Mammoth Hot Springs to hike the namesake geothermal feature. On the way, and just 200 meters from Undine Falls, a bald eagle flew ahead of my car, swooped to the ground and picked up one of the many road-killed ground squirrels on park roads. It was unbelievable. The large raptor never lost a beat. I couldn't believe what I just seen. It happened so suddenly, I never even picked up my camera much less got a picture of it.

From 12-1:30pm I spent time walking in and around Mammoth Visitor Center, getting my obligatory magnets for family and friends, and also using their Wi-Fi to check my messages. There is a resident herd of elk that has always lived in and around Mammoth, munching the manicured and nutritious grass and using the area as a refuge from grizzly bears and wolves who occasionally come into the area at night but usually avoid it, preferring the less populated hills around the small town.



I see the elk nearly every time I visit the park and on this trip I immediately spotted a herd of 10-12 grazing on a ridge immediately south of town as I approached Mammoth and 4 more were right in the middle of buildings in town eating the succulent grass, including one calf who was quite large for June 30, the month when calves are usually born. It is always fascinating watching these large ungulates who can weigh up to 800 pounds. It sometimes is equally interesting observing people looking at them and getting very close as they feed and protect their young (see below). Injuries occur every year with ungulates like elk and bison kicking at or goring people who get too close.



Ears back indicate that this cow elk is disturbed. There were people observing her at close range while I used my telephoto lens to zoom in on her. I took my time during the hot afternoon and hiked Mammoth from 1:45-2:40, enjoying the sun and trying to be patient with all the tourists who walked at a considerably slower pace than I normally do. Mammoth Hot Springs is a beautiful location with a great view of the surrounding area. This region consists of travertine terraces, one of the five major hydrothermal features found in Yellowstone. When water flows across the surface of limestone rock, material in solution often deposits the calcium carbonate as travertine, which is a form of limestone deposited by hot springs. It appears as white terraces of flowing water.

Like so many features found in Yellowstone, the region's unique geology and hydrothermal features must be experienced in person to get a true feel for what they are like. The steam, smell, and general appearance of these areas are truly unique. Hopefully these pictures will do justice to that amazing area.









Mammoth Hot Springs with the namesake town behind it and Mount Everts to the right.





After hiking in Mammoth I headed back to the east. Traffic was frustratingly slow in Mammoth, but I did see more elk including 3 calves next to a cow in town and 3-4 more south of town where I had seen the group earlier. Elk only have one calf at a time so often cows take care of each others', kind of like an ungulate nursery school. As I continued the drive the skies quickly darkened and before I even reached Blacktail Plateau it started raining and it continued for some time.

It was a busy couple of days so when I reached Lamar Canyon I pulled over and took the most wonderful nap for over 45 minutes. Both the loud rush of the Lamar River and the rain hitting the car drowned out the sound of the nearby passing cars. As the precipitation stopped, the sun came back out and warmed things up. This change in conditions woke me so I left the canyon, re-entered Lamar Valley, and pulled over at the first lot called Fisherman's Pullout. I put on my swimming gear and, despite a herd of bison fairly close to the Lamar River on the far (south) side, I walked down to the riverbank and took a dip in the cold, fast moving mountain stream. A few people were surprised to see me just go right into the water but there was no law against swimming there albeit one had to be careful and choose a slower stretch of river since water levels are generally high in June following snow melt in the mountains.

Yellowstone's abundant water proved a great place to be able to maintain one's hygiene without the convenience of civilization. I have historically used this and other rivers to get clean while out here. I don't use soap in the water, just the natural flow of the crystal clear river.

While there, a wildlife watcher showed me another dead bison calf with 4 ravens and an eagle nearby. This was pretty close to where all of the wolf activity was observed earlier in the day but was about half way up slope in the rocks between the Lamar River and Jasper Bench. It was clear by its location away from the river that something killed this one.

A short drive up the road brought me back to Dorothy's Knoll Overlook where I scoped the area at 4:25pm. This area is higher in elevation, providing a better overall view of the area, yet I couldn't find that new calf carcass from up there. To my southeast there were now about 500 bison all over the river bottom. They were everywhere, living life as they have for thousands of years. It was great to see.

Continuing east I stopped near a group of wildlife watchers looking at something in the eastern part of Lamar Valley about a half mile east of the Yellowstone Institute, which is also called Buffalo Ranch. It is a cluster of cabins, that yes, true to its name, once housed bison that were restored to the park. The place now offers education programs for park visitors and the cabins house them for overnight programs as well as a few rangers who patrol that area. I asked a couple what they were looking at and they commented that there was a dead cow bison. The carcass was fresh and only a few hundred yards from the road. Rangers had already put signs warning people to not enter the region. I was excited as I suspected this area would be a great place to see scavengers feeding off the large carcass. It was unknown if the bison was hit by a car and died nearby, or if it was from another cause. Because it was only 5pm and the sun was still well up in the sky I decided to take a hike and then come back to the carcass at dusk.

Bison all over the valley floor (top) and Lamar Valley after a mid-afternoon rain storm.



From 5:30-6:20pm I hiked to Trout and Buck Lakes at the eastern edge of the Soda Butte Valley. This is one of the more beautiful and easy hikes in the park. It is about a half mile to get up to Trout Lake and another half mile to continue to Buck. It is uphill to get there providing for a very easy route back down.

There is an inlet pond in Trout Lake where its namesake were spawning which was at the tail end of their season. There weren't many at the beginning of the inlet stream but a good amount midway up around where the trail led to Buck Lake. They looked tired as they were resting in calmer waters to either just lay there or to take some more time before they followed the rapids up to higher ground.





Beautiful Trout Lake. Even on a cloudy day the nearby foothills and mountains reflect off the clean, clear water.



Cutthroat trout and Canada geese along Trout Lake and its tributaries.







Buck Lake (top) and Round Prairie (bottom) with 'The Thunderer' (mountain) on the right.



Pasta and sauce dinner in Round Prairie with Soda Butte Creek to the left. Living in one's car requires simple meals by necessity. Before heading back the ~5 miles to Lamar Valley, I decided to go further east on the road to Round Prairie which is a one square mile open, grassy area across from the Pebble Creek Campground. There is a beautiful parking lot overlooking Soda Butte Creek. It provided an ideal location to have dinner. I filled my pot with stream water and boiled it to make spaghetti. I had a fantastic view of the surrounding area including 10 bull bison scattered around the circular meadow. This would not be the last time I ate here during my trip.

As I left Round Prairie at 7:16pm, there was another light rain followed by thunder. Fortunately it didn't last long and the skies soon cleared. Just over ten minutes later, I returned to the dead bison in a region of the Lamar called Hubbard Hill.

There was nothing near the bison carcass. Becky and Chloe, a couple from Missoula, MT who visit the park multiple times a year, found a light, blondish grizzly bear just below a snow cornice at the top of Specimen Ridge. It was over a mile away, but I had officially seen my first grizzly of the trip.

After 15 short minutes of looking at nothing visiting the deceased bison cow, I decided to get greedy and head back to Dorothy's Pullout for a better view of the valley and possibly the calf bison from this morning. Wolves and bears usually first visit a carcass that they didn't kill at night, especially when close to human use, and it seemed very apparent that they would not get to this carcass before dark.

On the drive over, bison littered the valley. They were more active than earlier and were enjoying the coolness of the setting sun. After 21 visits I can't help but still feel giddy when observing these primordial beasts in Yellowstone. This park (and all of the other ones I visited) is most definitely a better place with them there!





After just a few minutes of using my spotting scope at Dorothy's Knoll, I, along with the wildlife watchers present there, were looking at wolf 996M from this morning. The white GPS box on the bottom of his radio-collar makes this graying black wolf easy to identify. He was actually coming from the Lamar Canyon area traveling northeast which meant he most likely went back to the females and pups and brought them a load of food via regurgitating it from his stomach. It is a more efficient means of traveling with food compared to carrying it.

996M traveled north dropping down to the river west of the bison calf carcass. I had missed him feeding earlier in the evening. He drank, lapping up water for 2-3 minutes. He then traveled east, finding a safe place to cross the Lamar River. He was able to walk across the first part of the river but, after he reached a gravel bar separating the river, he went in and got swept downstream to the west about 100 yards! He finally came out of the water on the north side of the river, and casually continued on his way north without even shaking off his fur, like his life wasn't just in limbo. It was clear he was heading back to the pups for a second time so I immediately packed up my gear and headed west to the next lot called 'Coyote Overlook'.

Unfortunately, I was too late as he had already crossed the park road. It would've been a great view of him just to the west. I was able to follow him through the sage up the ridge heading toward Secret Passage, similar to the route I saw the yearling take in the morning. At 8:44pm, he went out of sight. I drove west through Lamar Canyon and then up the campground road but wasn't able to find him and *only saw* some pronghorn, scattered male bison, and an elk up the ridge to my north. I heard the beautiful call of sandhill cranes and was able to check my cell phone for messages as I had service there.

My plan was to drive back to Cooke City and sleep just off one of the side roads that I have stayed at before but I was so close to the campground I decided to go to the long lot where the Slough Creek Trail was and park there. The campground only has about 20 spaces and I knew it was already full from the sign on the main park road. Even though I was supposed to stay in the campground it was already 9:50pm and I was exhausted. I didn't want to drive 45 minutes back to the Northeast Entrance when I could just crash in my vehicle near where I planned to start my morning. Luckily it worked as I only heard one or two cars all night and slept like a baby tucked into my sleeping bag while reclined in the driver's seat.

Day 14: A Slow Start at the Bison Carcass

It only got down to 45-50 degrees which is pretty warm for a Yellowstone morning, even for July 1st. The heat often leaves the valleys at night and cold air normally settles in. My alarm went off at 4:38am, and by 4:47 I got up, quickly arranged the car, and relieved myself in the nearby outhouse. Such was the existence while living a mobile lifestyle.

I then headed directly back to the bison carcass in the eastern part of Lamar Valley, arriving there at 5:11am for first light. It was so early there was only one other car there. Nothing was at the carcass yet and the bison cow was still intact so wolves or bears apparently did not open it up during the night. As it slowly became light, ravens arrived at the site but they didn't stay long since they can't do much more than pick at the eyeballs and anus region of an unopened ungulate like a bison or elk.

Using my spotting scope, I scanned the valley to the southwest and saw 17 pronghorns in the flats. There were also scattered bison groups, nowhere near the number of the previous evening but still around 100 or so. Four calves were running back and forth without a care in the world in obvious play behavior.

Looking to the southeast, I saw many ravens gathered in the sagebrush down by the river about a half mile away. A coyote was also poking around the same general area. I quickly lost it in the sagebrush. Then it abruptly got very dark and started raining at 6:11. I drove to a nearby pullout to wait out the storm as I was just parked at the edge of the road on a slope near that carcass.

It was still thunder and lightning above Specimen Ridge when I started scanning again at 6:30am. I saw more ravens and a golden eagle on the river bank, then saw 20 bighorn sheep ewes and lambs around a snow cornice just below the top of Specimen. They didn't look phased with the nearby lightning. I spent many minutes trying to get an amazing picture of the bighorns and lightning in the same frame but kept missing capturing those flashes of light.

At 6:49am, as I was watching the wild sheep it started to rain yet again. Then it hailed out, and heavily. While sitting in my car, I recalled that the only day it hadn't rained during these first two weeks was when I left American Prairie Reserve a day early to *avoid rain*! It really took a unique attitude to not get completely burnt out with Mother Nature. Of course, the special settings I had been in during those days didn't hurt either!

Bison carcass in sagebrush about 200 meters from the park road. This was before large animals found it so it was not opened up yet.

Location of dead bison in the sagebrush in the eastern part of Lamar Valley. /

I dozed off while waiting for the precipitation to subside. At 7:20am, it died down enough for me to make breakfast and get some fuel inside my body. It is stunning what oatmeal, a banana, and hot chocolate can do for the spirit when a day begins like this one did.

Bighorn sheep ewes and lambs near the top of Specimen Ridge during a lightning storm.

Storm clouds above Specimen Ridge and Lamar Valley. The bighorns in the previous picture were just below the snow dotting the top of the mountain ridge.

After having breakfast, I decided to drive west back to Slough Creek and the campground road. There is an observation hill near the road called 'Bob's Knob', named after a well-known cinematographer, Bob Landis, who still goes into the park nearly every day to film wildlife. He has produced most of the documentaries on Yellowstone wolves which thousands of people have seen. I knew from reports before I arrived in the park that the Junction Butte Wolf Pack denned upslope and within view of that observation spot but had since moved out of view to the east behind the Slough Campground.

I headed out onto the knob and, after talking with wolf watchers who were already there, found out that I had just missed 8-9 of the adult wolves from that pack down in the flats. They were headed further west and were OOS when I arrived there. If I had just stayed there this morning I would have seen them. The area was no more than a mile from the Slough Campground area. "Grrrrr", I wrote in my campground notes. I had not only just missed the pack, but it was pretty clear that the canines did not yet know about the dead bison 5 miles east of there.

At Bob's Knob I talked with Jeremy Sunder-Raj, who I've known for years and who currently works as a wolf research seasonal technician. He recently graduated from the University of Montana in Missoula but has worked in the park since he was in high school. He told me that the wolf pups were conditioned to people around the Slough Trail area, amazingly right near where I spent the night. There were 6-7 pups and the park was keeping it quiet so people wouldn't go up there and try to get close to them. Jeremy was actually shooting paint balls at them to try and negatively condition them from people. That is a reasonable compromise, I thought, to try and get them more wary of people but to also not have to do anything worse like potentially euthanize them if they became habituated to people.

I also found my friend Rick McIntyre off the Slough Campground Road. Rick is a Massachusetts native, and 25 year veteran of watching wolves in Yellowstone. He recently retired from the National Park Service and planned on writing a minimum of 3 books on the wolves that he has closely studied. Rick has seen more wild wolves than any other human in history. Some of the impressive records that he has made include being in the park for 6,175 consecutive days (over 15 years), seeing wolves an amazing 892 days in a row, and having over 100,000 sightings of these canines. These stats are recounted in his book *The Rise of Wolf 8: Witnessing the Triumph of Yellowstone's Underdog*, the first book in the series, published in October 2019.

With the wolves out of view in the Slough area, Rick and I headed west and ended up all the way on the Blacktail Plateau where I had briefly scanned for wolves the previous day. I saw a little black bear on the drive at the base of a small mountain called Junction Butte. I took a few quick pictures before continuing. This is where the wolf pack received its name because they were first seen in this area when the pack formed a few years ago.

At Blacktail, we looked to the southwest to an area that wolf watchers call the 'western rendezvous', which isn't a formal name but aids people with knowledge of that location where to scan in the vast area of the rolling hills. We only managed to see a bull and cow elk and just a few scattered bison bulls. After a 20 minute effort we headed back east stopping at Hellroaring Overlook and Tower Junction with no sightings other than getting stuck in 2 black bear jams. The first was a small one with an ear tag on the side of the road at Phantom Lake. The second was an adult grazing right in the middle of the flats at Tower.

While at Blacktail, Rick discussed his book projects and they were impressive. He had at that point been retired for just over a year and had finished his first book on wolf 8 that has since been published (Fall 2019). He was doing edits of his second book of the series on wolf #21 (that is scheduled to be published in Fall 2020) and was about to start his third book on wolf #302. These are some of the most famous wolves that were key to the success of the Yellowstone Wolf Reintroduction Program. He has so much material, he was even considering writing a fourth book on more recent wolves. Given that he is doing all of that writing and he still heads into the park just about every morning (but now takes the afternoons off), he doesn't like the term 'retired' for his active lifestyle. He usually spends 5-6, and sometimes up to 8, hours per day working on those books.

There is a large recycling center and two nice modern outhouses (meaning they don't stink!) at Tower Junction so watchers often stop there when they travel in that direction. After watching wildlife for hours, people need to use a restroom. It was still before 10am but Rick decided to head back to his home in Silver Gate to write some more as he already saw the Junction Pack on the flats. He was satisfied with the sighting and itched to get back to writing. I was shut out for wolves that morning but none were in view so I decided I would do other things and come out later in the day.

I continued east all the way through the Lamar Valley and stopped at the confluence of the Lamar and Soda Butte Rivers, one of my favorite and most beautiful places. It is hard *not* to get great pictures when there. Most veterans of the park just call it 'The Confluence' and know it refers to those two rivers, even though there are many confluences of two rivers in the park.

A bear-y morning. The little bear with the ear tag (below left) was near Junction Butte, which is at the western part of Little America. This larger boar (male) bear was near Tower Junction. Both were grazing on grass, a staple food item from late spring to early summer for these omnivorous animals. The sun made it hard to get good, detailed pictures of both of them.





Black bear at Tower Junction. While most books use up-close images like on the previous page, this picture provides a good frame of reference of the animal grazing in the open.

A good perspective of my car parked at the confluence of the Lamar and Soda Butte Rivers with Mount Norris in the background. This is one of my all-time favorite locations.





Different viewpoints at "The Confluence". Note how the road is right next to the river.



From 11am-1pm, I spent time outside of the northeast region of the park in Silver Gate and Cooke City. I checked email and visited gift stores. I have my book <u>My Yellowstone Experience</u> for sale in some of the shops surrounding the park so I always bring 6-8 with me to try and sell to the stores to restock their book shelves. Unfortunately, the Cooke City General Store still had one left from a few years ago so didn't need to buy any new ones.

I also checked out former housing that I stayed at in Cooke City and found out that in the past few years it had changed ownership. My friend and colleague, Dr. Bob Crabtree, who is director of the <u>Yellowstone Ecological Research Center</u> sold his field station to the owner of the Exxon Mobile Station, one of two gas stations for many miles in any direction. (Yes, both charge an arm and a leg because of the remote location!)

At 1:30pm I met with Rick McIntyre at his cabin in Silver Gate and got caught up on his projects. He elaborated on the process of writing his second book and getting ready to start the third and how he worked on them every day after his morning wolf observations. He said that it was a nice balance to see wolves in the morning and interact with friends and visitors, but then to have many hours afterward to work on his book projects. That made sense to me. I offered to review the books for him and he appreciated that. (Sure enough, he got his first book published October 2019 and I promptly wrote a positive appraisal in a professional journal: Way, J. 2019. Book Review – The Rise of Wolf 8: Witnessing the Triumph of Yellowstone's Underdog. Canadian Field-Naturalist 133(2): 180-181.)

I noted that it was one of the more unique books ever written on wolves saying, "Rick McIntyre combines his extraordinary level of observation with great storytelling. For fans of Yellowstone or wolves, this book is priceless, with a historic feel that is palpable. I wholeheartedly recommend it." Indeed, it is surely a must read!

After meeting with Rick, I headed back into the park at 3:30pm and pulled over near Pebble Creek to relax and read for an hour. This is a beautiful cold water stream in Round Prairie that joins the Soda Butte River on its journey to the southwest. At 4:10pm, a car stopped near me. I looked over my shoulder and realized that they were looking at a black bear on the hillside behind me (see next page). I was able to get good pictures and chuckled that it was probably there the entire time when I was looking down reading!

After that sighting, I went back to the western-most pullout in Round Prairie and made dinner, again using the fresh water of

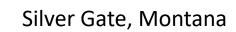
Soda Butte Creek to boil in my camp stove. I gorged myself on pasta, sauce, and buttered bread, then topped if off with a Mrs. Freshley's Buddy Bar, the Dollar Store's version of the Little Debbie Nutty Buddy. My plan was to do a fast after I was done eating, which was at 5:23pm. Once or twice a month I don't eat for 36-40 hours or longer. I only have water during that time. The purpose of these fasts is to let my body recover from constantly processing food and allow my cells to do other things like burn fat, boost my immune system, and function more efficiently. That and trying to not eat for 15-17 hours a day about 5

days a week has had noticeable benefits to my health.

After cleaning the dishes from dinner and packing up, I headed straight to Hubbard Hill and the cow bison carcass, arriving there at 5:43pm. It still hadn't been touched and I wasn't planning to stay long, but a visitor came up to me when he saw me using my spotting scope and said that he recently saw 3 'wolves' just below the sagebrush to the east, near the Lamar River. I nicely asked if he thought they could've been coyotes and he said they weren't. He says they were lighter than coyotes and were playing.

I scanned all over the area and couldn't find them. I did see a raven go to the carcass from 6:11-6:17pm and tug at it but it couldn't get much without it being opened up so it abruptly flew off to the northwest. I also found the group of bighorns from the morning south of my location and just below the top of Specimen Ridge. At 6:30pm, after not finding the canids in question, I decided to depart as a magpie was the only animal in the vicinity of the dead bison.





Leaving

YELLOWSTONE NATIONAL PARK Pebble Creek in Round Prairie

100

I headed the 5 miles west back to Slough Creek Road and went out onto Bob's Knob. Wolf watchers had seen 2 wolves, a black and gray, out on the flats of Slough Creek. For the first hour of watching them, they stayed mainly in willow bushes and were difficult to see as they rested. As we watched them I found a third, a black, up on a knoll of grass and sage above (north) and a bit east of them. It was lying down like the others with an occasional head rise to look around.

Location of the bison carcass (middle center) with a "Do not enter" sign warning people to stay away from the area.

It rained lightly a couple of times for 5-10 minutes which cooled us off but the wolves didn't budge from their bedding spots until 8:15pm when the 2 in the bushes got up. Those 2 quickly materialized into 3 wolves as one was clearly bedded out of our view beforehand. Despite re-bedding at 8:19, it seemed that they were gravitating to action as even the black on the knoll was now sitting up looking at the others.

One of the issues with that viewing location is our view of the canines is due west so the sun can be blinding when it is setting. The rain clouds actually helped but when it cleared up after the precipitation stopped the sun peaked in and out of the clouds. Luckily for us, the action beefed up at 8:25pm as the sun was getting lower on the horizon.

Two collared black wolves (one being 996M), an uncollared black, then a black and brown wolf who looked like an African wild dog walked to the west in the flats. The last wolf was categorized as a black but had a very unique look with his coat pattern. He was collared and had a permanent limp. Wolf watchers knew him as 1047M, the alpha male of the Junction Butte Pack. As they moved west they got to an oxbow in the creek where they were about to go out of sight (OOS). At that point, the uncollared black on the sage mound stood up, stretched in place, and then went down to the flats and met the others. It squatted to urinate so we figured out she was a female. She had a fleet greyhound-like body and was likely a yearling, born the previous April 14.5 months ago.

By 8:39pm all 5 were OOS. I went back to the park road and drove west a short distance to 'Boulder Pullout' and looked for them to the north. I only saw 2 elk and they did not seem concerned about any predators being near them. Others had quick views of the wolves from nearby pullouts.

I summarized my notes at Crystal Pullout, the place where I saw the bison herd cross through the parking lot earlier in the morning. I finished writing right as it became dark at 9:33pm. I heard the 'pent' call of a woodcock in the air above me, a familiar call in the open meadows in my hometown on Cape Cod, MA.

I decided to listen for howling at Bob's Knob one last time and, on the way, lucked out seeing a black wolf cross the campground road right in front of my car's headlights. It was traveling east toward Secret Passage. I hoped it was heading to the bison carcass in Lamar.

I never did hear any howling. At that point it was already dark and I was right by the campground, which was full again, so I parked at the Slough Trail lot for the second night. There were a fair amount of cars already there, possibly camping in the area or visiting the nearby horse stables. I laid down at 10:02pm in my driver's seat and just about immediately fell asleep.

Day 15: Wolves find the Carcass and Black Bears are Everywhere

It was a quiet but short night's sleep when my alarm sounded at 4:42am on July 2nd. Fortunately, it wasn't that cold again and I quickly got going, heading the short mile or so drive on the Slough dirt road to Bob's Knob to scan the area at 4:58. With no animals in sight at Slough, I quickly left and arrived at the carcass site at Hubbard Hill in the Lamar at 5:13am. It was still getting light out and I was the first one there. Within just a couple of minutes, I saw a black wolf come in from the southwest. It was a black Junction yearling with a light white shoulder stripe and a dot on its chest. This was a male, who was bigger than his sister. (There was a third yearling in the pack too, a handsome gray male).

Despite the presence of the wolf, the bison still didn't appear to have been opened. Confirming that the wolves likely hadn't eaten it yet, the young male nervously circled the carcass 4-5 times sniffing the air. After ~10 minutes of doing that he approached the large cow and took a few bites just as 2 bull bison approached the carcass site. What timing, he must have thought!

The bison duo did not do much other than stand near the carcass but the wolf got nervous and traveled west three-quarters of a mile into the flats then abruptly turned around and came back to the area. But instead of visiting the carcass, he proceeded to head south and swim the Lamar River to the southeast.

The yearling sniffed around on a gravel bar near a few ravens and many magpies. None of the wolf watchers could find a carcass that the scavengers were eating. Apparently neither did the wolf, as he just spent a few minutes there then swam back to the north and came straight back to the carcass only 150 yards from the road.





Junction Butt Pack yearling male with 2 bull bison watching him approach the dead cow bison carcass.

"Amazing, what a lot of energy to have to swim that swollen river twice", I noted.

The 2 bison stood nearby but this time the wolf came in and fed for about 10 minutes. The bison continued to stand there and would briefly challenge the wolf, until the wolf finished at the carcass at 6:30am. He then traveled off to the southwest toward the large cottonwood trees in the river corridor, disappearing into a little ravine.





Junction male black yearling returning to the bison carcass after swimming the Lamar River twice.

It would be an understatement to consider how fortunate many of the people in the crowd felt to be able to watch a wild wolf as closely as we did. It truly was a peak life experience for many, including myself.



Bison challenging the black male yearling wolf from the bison carcass. Bison, especially males, often actively keep wolves from feeding on carcasses. It is an unusual behavior especially given that this bison was already dead from unrelated (i.e., not a wolf kill) causes.

After the yearling disappeared to the west, I continued searching in that direction. There was a sweeping view of the Lamar Valley from our angle, and within minutes we spotted 4 black wolves at 6:50am. They were well to the west in the flats. I was sitting near a wolf watcher who had a radio and we found out that people saw them up close on the road at Coyote pullout in the western part of Lamar. They were headed east toward us. Many wolf watchers, who spend multiple weeks each year in the park, have two-way radios so can communicate with each other. I often borrow a radio during my trips which facilitates wolf sightings.

It appears that the 'word' was out. Wolves somehow knew about the carcass and were headed this way. It was exciting knowing exactly where the wolves were traveling.

I drove about a mile west of the carcass to the Institute parking lot and had excellent views of the quartet as they traveled from the southwest to southeast of me. One was dark and uncollared, another was 1047M – the brown and black alpha male, a third was 996M with the GPS collar, and the other was the female yearling. They were focused and traveled right past a group of 20-25 pronghorn. They often stopped to howl which I found interesting given that I assumed they knew where they were going.





Uncollared female yearling

Perspective of alpha male 1,047M in Lamar River

Alpha male 1047M

Alpha male 1047M in Lamar River

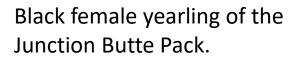
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At 7:22am, with the wolves still in sight from my location, I rushed back to Hubbard Hill and luckily found a parking spot since the area was getting busy as it got later in the morning. Both the wild carnivores and the people were discovering that there was going to be a lot of action in this area over the next few days. Shortly after I arrived, so did the wolves.

Approaching the dead bison from the southwest, the wolves sniffed the air and looked in that direction noticing a line of people watching them from the hilltops next to the road. They were clearly nervous. So, instead of making a northward final descent to the food source, they trotted east toward the river where the yearling had crossed earlier in the morning. While the adult wolves, including 1047M, stayed out of view for the next hour in the river corridor, the black female yearling approached the carcass site.



The black female yearling left the other wolves in the river corridor and traveled to the carcass with many cars and people lining the edge of the road to watch.



Despite the noise of cars close to her, for the next hour we had the most amazing up close view of the black female yearling with good light to really see her. To top it off, she let out multiple mourningful howls almost seemingly asking, "I found the carcass. Where are the rest of you, and why aren't you coming here?!" Her voice echoed across the valley. People were relatively quiet and respectful while watching her in awe.

While she was at the carcass, 996M apparently crossed the road to the north between Hubbard Hill and the Institute because we found him up slope howling down to the others. Unbelievably, he was only about 100 meters away as the crow flies which was technically closer than the yearling was! He paced back and forth on the ridges above us but was clearly not going to cross the road to come to the carcass given all the cars. He did have a commanding view of the area though!







Adult male 996M of the Junction Butte Pack looked down at the cars and carcass site listening to the black female yearling howling her head off (see next page).



As nice as the day started, the skies quickly darkened. At 8:42am, thunder and lightning forced us all to our respective cars. It rained heavily for the next 15 minutes. As the rain was coming down the yearling left the carcass and traveled northwest to the road and likely successfully crossed as nobody could find her after the precipitation stopped.

It was still raining moderately at 9:15am. I got out and looked but saw nothing at the carcass. Using this new-found free time, I decided to take a quick nap to recharge. At 8:45, I noted that there were ~100 cars in the area but most had left when the rain came. By 9:50am, many cars came back since it was only lightly raining. Wolf 996M was still bedded on a ridge north of the road but there were too many people for him to cross the road. After it started to rain yet again I decided to head west to Slough and use the outhouse before journeying for the day to the west to explore the park. This was the 14th out of 15 days of my trip with rain! Considering that much of the west had a 10-year drought, it was much needed water for the vegetation and watersheds.

I reached Tower Junction at about 11am and took a left to go toward Canyon for the day. Right before the beautiful Calcite Overlook 3 miles south of Tower, I saw yet another black bear. This is a common spot to observe them but I couldn't believe how many I was seeing during this trip, and from all over the park. While the little bear was not very photogenic, hiding behind trees and logs, I was nonetheless close to another wild bruin.

Soon after I went to a favorite overlook of mine. Calcite overlooks a beautiful stretch of the Yellowstone River. Yellowstone got its name from the yellow color on the rock formations which consists of limestone and other rocks as well as iron and other minerals. As I was taking pictures, it rained again. I wrote down, "I was only here for 10 minutes and there is yet more rain, this really is amazing."

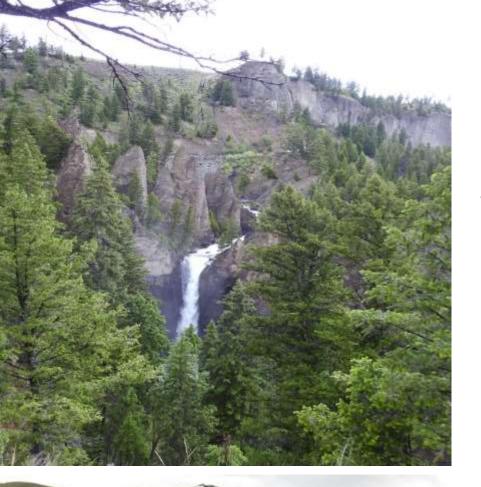
My next stop was just down the street at Tower Fall. I took a short walk out to the namesake waterfall, which is behind a gift shop and restaurant. After that busy tourist stop, I headed south toward the Canyon area. It had been a cool spring and there was still much snow in the Mount Washburn area of the park. This is a high elevation section of the road that has to be crossed before getting to Canyon. Even though it was early July, the beautiful summer wildflower meadows hadn't bloomed yet. It was early spring in this region according to the biological clock of the flora that were just getting exposed to sun without snow for the first time.



Black bear (left) and Calcite Overlook (right, and below)







Tower Fall (left) and Washburn Range (right and below). Snow had just begun melting from the area by early July.



On the way down from Dunraven Pass, and about halfway to Canyon Junction, I saw a cinnamon-phased black bear 40 yards off the road munching on grass. Some of the tourists were calling it a grizzly because of its brown color but it clearly was a black bear, *Ursus americanus*, with a straight facial profile and no shoulder hump.

All the bears I had observed thus far in the park were feverishly eating grass, desperate to gain the weight they lost during hibernation. I took some pictures then left the bruin to forage with one less person staring at it.

I took my time on that stretch of road and didn't arrive at the Canyon Visitor Center until 1:30pm. I stayed there for about an hour, as I always enjoy my time spent learning about the park's hydrothermal features that are explained in-depth at this center. The Mammoth Visitor Center has many displays of wildlife so I always like to visit both places to get a diverse and complementary experience.

After leaving the visitor center I was prepared to go to Hayden Valley, a beautiful open, prairie-like setting in the central part of Yellowstone. But there literally was a line of traffic heading that way. I quickly decided to head back up to Washburn and Tower, figuring I would come back another time and not in the middle of the day.

On the way back north I stopped at the many pullouts and took some great photos of the Antelope Creek range north of Mount Washburn. The light was perfect for panoramic pictures (next page).

I had been fasting all day. When I don't eat, I like to stay busy so I am not thinking about food every waking hour. This day trip, and chugging some water when I got hunger pains, was making the day manageable.







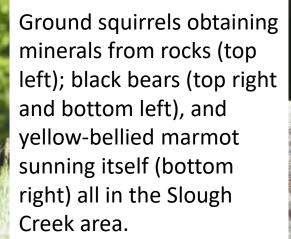
The drive through Antelope Valley was beautiful and non-eventful. I only saw 1 bison in the entire area. Given that there are about 4,500 bison in the park, I didn't know how it was possible since there was a ton of grass for them to eat there.

When I drove through Tower Junction I realized that it was still early (3:45pm), long before I would start watching wolves at dusk. I decided to go hike the Slough Creek Trail. I have always enjoyed this easy trail. On my drive up the 2 mile dirt road, a beautiful black bear was grazing on a hill. It casually walked off to the east grazing along the way. "Only in Yellowstone!" I noted.

I hiked the Slough Creek Trail from 4:05-5:50pm all the way to the first meadow past a ranger Patrol Cabin. It was an easy 4.5 mile hike. I saw many ground squirrels and a couple of marmots. About ³/₄ of a mile in I swear I heard a cub call and cougar growl in a steep ravine east of the trail. I stopped and sat for 15 minutes, listening intently, but didn't hear anything else. Disappointed, I continued my hike and in no time made it to the first meadow on the trail.

At the northern part of that meadow I saw 2 black bears. One, was blackish brown and was the mother; the other was a light cinnamon yearling that was 2/3 of her mom's size. They heeded me no attention and continued eating the lush grasses. Ten bison also grazed up on the western slope overlooking the pretty meadow. It was a great hike. I rapidly made it back looking forward to the water bottles I left in the truck. The backcountry off the road from north of Mount Washburn through Antelope Valley (east of the road) is closed most of the year to protect grizzly bears from human activity.

BEYOND THIS SIC







Slough Creek Trail's first meadow with patrol cabins.





One of the negative things about black bears foraging naturally and paying no heed to a human near them is they are not very photogenic. Their heads are mostly down, and their bodies are often hidden behind grass and logs. It isn't like the movies where they attack you or even stare at you like they might in areas where they are hunted. In Yellowstone, they behave naturally like they have since before humans arrived on this continent. Black bear mother and yearling at the first meadow of the Slough Creek Trail.

View from Slough Creek Trail. Note the marmot on a boulder.



It had been a great first couple of days in Yellowstone. It seemed that I was seeing wildlife wherever I went. Teddy Roosevelt's old adage of just 'being in the arena' was proving true. I was just out there doing it and I was getting rewarded with the effort.

I left the Slough Trail parking lot shortly after I arrived back from the hike. Due to my day of fasting, I would save over a half hour of cooking and eating. On my 6 mile drive back to the Hubbard Hill carcass I saw 2 pronghorns in Lamar Canyon in a very rocky, hilly area. It was an odd sighting as it looked more like a location to see deer, not the swift pronghorn.

At 6:32pm, I was set up at Hubbard Hill. There were already many people there. Observers only reported a turkey vulture at the carcass to that point. These scavengers have only recently been observed in Yellowstone and it is believed that global warming may be playing a part in their range extension.

Soon after the vulture sighting, we spotted wolf 907F, a gray female adult bedded in the flats to the southwest near the river. She was in tall grass and was difficult to see until 6:56pm when she sat up and howled three times. We could barely hear her with the half mile distance between us and the noise of the passing vehicles.

From 7:12-7:20pm she got about three-quarters of the way toward us through open grass, but abruptly headed south and swam both sections of the Lamar River like the black male yearling had earlier in the day. 907 departed the carcass area as she continued traveling east and stayed in and out of view from about a mile away as she neared the eastern end of Lamar Valley.

We didn't see much for an hour or so until we spotted a black wolf at 9:03pm. It was about 1.5 miles southwest of us below Jasper Bench. I only watched it for 2-3 minutes because I picked up 996M just northwest of the road right near this morning's location. He clearly wanted to cross, and at 9:11 found an opening 150 meters west of us. He trotted south to the Lamar River, keeping his distance from the carcass, and proceeded to swim the river getting swept downstream at least 50 meters to the west. I then saw him south of the river traveling east at dusk (9:31pm). Right at dark he met up with 3 other wolves to our southeast, including 907F, 1047M, and another unidentified black. 907 had obviously turned around from her foray and came back.

I was able to watch the wolves until 9:48pm when I gave up as it became too dark to see through my spotting scope. They were right at the river and it seemed obvious that they were ready to go visit the carcass as darkness came and people departed the area.

View of Lamar Valley from the west end to the east. The trees in the valley by the river are the cottonwoods that I referenced the wolves being near.



I left the area at dark and soon had a car right on my bumper. I drove for a way and then decided to stop at a pullout. To my surprise, sirens trailed me into the lot. My heart was pounding as I didn't now what I had done wrong. A park ranger asked for my ID and told me that both of my tail-lights were out. I had no idea especially considering that I made it across the country without a hitch. He also said I was driving erratically. I told him that I was stone sober and just came from wildlife watching at dusk. In addition, I mentioned that I was fasting which seemed to bewilder the young ranger – but it was the truth.

It was bizarre as I had barely seen law enforcement the entire first three days in the park and then all of a sudden there was one right on my butt for two miles. Fortunately he let me go and I thanked him. I had already secured a spot at the Slough Campground earlier in the day so I drove back there. I stayed in my vehicle while at the campground to save time in the morning, and was so tired I fell asleep within 5 minutes of arriving!







Day 16: Gray Wolves, Grizzly Bears, and a Dead Bison, Oh My

I woke up at 4:22am on July 3rd when a car drove by me super early in the Slough Creek Campground. I was groggy and didn't get going until 4:35am. It was chilly, being in the high 30°s, but I didn't care because I had a strong feeling that this day was going to be a big one at the carcass now that the predators had found it.

My body felt sound after the second morning of not eating. I often sleep weirdly on that second night, including having dreams and hallucinations. I usually do not drink enough water which doesn't help, and it seems it is my body's way of adjusting to this lack of resources. That is the point of me doing the fasts. And I was certainly fit enough to drive.

Rick McIntyre and I separately arrived at Hubbard Hill at 5:04-5:05am. It turned out, as predicted, to be an amazing morning with 7 wolves and 5 grizzlies in near constant action from the moment I arrived until 7:49am.

Wolf 907F, a gray mother who fluctuated with 2 other wolves as being the dominant female of the pack, was in view feeding at the carcass while 5 black wolves were harassing a small – likely subadult – grizzly bear in the grass just south of the carcass. The 2 black yearlings, 1048M (a beta male), 996M, and the uncollared black adult female were all present. The young bear was skittish and the wolves easily scared it away from them and toward the river where it crossed both channels to our southeast. It was still early in the morning and light was low but we could see the actions through our spotting scopes.

As the grizzly rapidly departed across the water and then went up slope to the trees, a sixth black, 1047M – the alpha who looks like an African wild dog – showed up and greeted the other wolves who submitted to him like a puppy often does to its owner. Tails were wagging and bodies were held low in a show of active submission. Even with a permanent limp, 1047 commanded respect.

The 6 black wolves traveled west. 907F soon left the carcass and heading to the southwest. As she approached the group, the black adult female promptly pinned 907, showing us quite clearly that she was not the dominant female anymore. It was clear that the wolves fed on the carcass over the course of the night since they were just meandering around the river corridor to our southwest. 907F quickly disappeared to the west, likely heading back to feed the pups at Slough, while 996M, 1048M, and the black adult female swam the river to the south. The wolves were dispersing in all directions away from the carcass.

Junction Butte wolf pack greeting in Lamar during low light conditions at dawn.

Just as we thought that the activity might die down

Junction yearling male feeding on the bison carcass. Note his bulging stomach and the amount of meat taken from the rear portion of the bison.

Just as we thought that the activity might die down with wolves going in different directions, the male yearling headed straight toward and fed on the carcass. He obviously wasn't as nervous as the rest of the pack about approaching the dead bison despite the ubiquity of people nearby. He had a good feeding before leaving the area to join the others. As the black male yearling left the carcass arena, I scanned to the west and saw a mother grizzly bear and 2 yearling cubs (1.5 years old) in the valley traveling east toward our location. The mother was sniffing the air from almost a mile away and scent trailing to the carcass. It is almost hard to imagine their sense of smell compared to ours whereby they can literally find a carcass from over a mile away by just using their nose.

When the bruins got about a half mile from us, the 2 black yearling wolves met up with the bears and literally followed them, acting like an escort service. The wolves nipped the bears in the butt a couple of times to harass them but it was mostly a casual affair for these two top carnivores. The 5 animals were jogging as the mama grizzly clearly wanted to eat.







Junction Butte Pack's 2 black yearling wolves escorting a family of 3 grizzly bears. Notice how close the bear cubs stay to their mother.





There wasn't a lot of interacting between the two competitors but this photo shows the wolves bothering a yearling and the mother bear turning around to briefly chase them off.



A bald eagle, our nation's symbol, photobombing the wolves and bears as it flew past them.

While all this was happening, alpha 1047M was bedded in the flats nearby and was content with just watching the action as the 5 animals approached the carcass. There were phenomenal views literally right in front of us. It seemed that 1047 was thinking, "Why would I do anything when these yearlings can do all of the work for me?!" He watched, as did we, as the 3 grizzlies and 2 yearling wolves came straight to the carcass. And surprisingly the first thing the grizzly family did, in close view of the human spectators, was roll on the carcass for 3+ minutes before feeding. The mother bear was nervous since she was so close to all the people but she also was out in the wide open which could be dangerous for her cubs if a large male bear came by. It is unknown if boars recognize their own offspring because infanticide is common among grizzly bears.

The mother stood on her hindlegs 3 different times clearly scanning for danger in all directions, including the road. The crowd, especially some louder children, ate this up and were 'oohing and aahing' over every movement. Rick and I let a lot of people look through our scopes and I was frantically switching between using (and sharing) my spotting scope or my 83 power optical zoom camera on the tripod. I had mounting plates for both optics which allowed for a rapid connection to, or decoupling from, the tripod which was critical to save time.





The bears only fed for a couple of minutes then ran off to the south, with the wolves following. The mother appeared to be too nervous with all the commotion so close to the road. I was amazed she even came that close to the road during daylight. As the bears continued away from the carcass and toward the river they ran into 1047M who was bedded nearby and stood up to confront the family (see picture). Similar to the yearlings, there was a minimal amount of interaction between 1047M and the bruins as they all wondered to the south.

As the 3 wolves and 3 bears moved away from the carcass, I noticed a fifth bear of the morning, a large grizzly, running in from the west to the east in the middle of the open valley. But instead of going to the carcass, he continued running east and literally ran right by the 3 bears with the mother proceeding to chase it.

It was clear that the big male was nervous since he wasn't aggressive toward the family. It was difficult to tell what made him act like that as he didn't overtly react to the crowds. Rick and I knew that he was close and even when they were all near the river they were still less than a half mile away from the road.

The mother sparred with the male for about 5 minutes and the boar then ran northwest to the carcass with some wolves following him. He only fed for just over a minute before getting spooked and running fast to the southeast, quickly crossing the two river channels and going east well away from there and to the back part of Lamar Valley. It was hard for many observers to see a 500+ pound bear so afraid but most carnivores are not comfortable near people and there is little doubt he knew exactly where he was despite not looking up to acknowledge the crowds.





Main picture: male grizzly (right) detecting the female with 2 cubs (left). Inset pictures: Male looking around while on his hindlegs, then running to carcass.



Male grizzly arrived at the carcass, and flushed ravens out in the process. He looked around and did not stay long at the carcass, before running back to the southeast where he came from.



Not to keep us bored for a moment, as the grizzly went out of view to the southeast, the 3 wolves (1048, 996, black adult female) that went southeast earlier in the morning, swam the river back to the north. They crossed at separate times from each other. The two yearlings, 1048M, and 1047M met up in the flats south of the carcass and used their excess energy to escort the mother and cubs to the west. There was a lot of jostling back and forth (see picture) but it didn't seem too serious as the bears continued traveling, eventually swimming the river and moving to the southwest toward the Jasper foothills.

Soon after the bruins were out of the area, the wolves met and had a rally on the flats, including 996M. There was a lot of tail wagging and genuine happiness with their meeting even though they were together an hour earlier. Oddly, the black female adult remained few hundred yards east of them, resting near the river she had just crossed.





After the greeting, the wolves re-crossed the river and headed east in a long, spread out line. I couldn't believe how the black adult female, 996M, and 1048M crossed the river three separate times that morning. Each time, they all got swept about 100m downstream as they crossed. It didn't look like the safest undertaking let alone doing it three times in such short order.

At 7:49am, with the wolves mostly out of sight, I needed to give my eyes a break from the nearly 3 straight hours of looking through my spotting scope. Plus, I was ready to break my fast so I sparked up my camp stove using water I had in a jug in the car. As I was preparing my oatmeal and banana meal, a huge bull bison went from rolling in a wallow on the north side of the road to crossing the street 10 feet away from the back of my truck. I kept thinking, "This has been an amazing morning, how can I top this!"



Five adult wolves of the Junction Butte Pack crossing the Lamar River with 3 bison in the background

25

Eating for the first time in 38.75 hours felt great. Normally my body calms down after 24 hours of not eating, but I was hungry during most of this fast as I had used so much energy from hiking, exploring the park, and even shivering in the cold in the morning. It takes a lot of discipline and mental fortitude to fast for that long in any condition, especially while on an expedition, but I swear by it and have done it 1-2 times a month for over five years in addition to going ~16 hours without eating on most days. There is no question that it has bolstered my immune system and has had other tangible health benefits including: regulating my body's glucose levels, making my metabolism more efficient, and obvious weight control from not putting calories in my body on an intermittent basis.



As I ate breakfast and thought about the events of the first three hours of the morning, I noted a few things. One, it was astounding how much energy the wolves possessed. The yearlings ran all around even after the three river crossings. They weren't the purposeful movements one thinks of when following the straight path of a wild canid in the snow. These animals were crisscrossing all around, a clear indication of play. Simply put, they were having fun.

Two, during the first three days of watching the carcass, only a few ravens would show up at a time. Today, there were a couple of dozen. There is no doubt that ravens feel more comfortable around wolves, especially since they open up the carcass and make it accessible to them.

Three, I hadn't observed any coyotes at the carcass site which is odd since they almost always appear at dead animals, including wolf kills. This was especially perplexing because of how close this one was to the road and the larger carnivores were reluctant to approach during daylight. In fact, in 4 days of being in the park I had only seen one coyote the entire time. That was the first evening I was in Yellowstone when I spotted that individual to southeast of the carcass area soon after the bison cow was found. This was odd as we know coyotes are doing just fine in the park. Although wolves occasionally kill them, they still reside in small packs and there are multiple social units residing in the Lamar Valley alone.

After passing by my vehicle this big bull bison casually walked off into the flats of Lamar Valley.



After I finished writing these notes at 8:45am, I got back out of my vehicle. Park Ranger Bill Wengeler, a school teacher from California who works summers in Yellowstone, pointed out wolf 1048M traveling south behind Jasper Bench. He was well over a mile away. While I took 45 minutes to eat and write in my notebook, the wolves kept on moving and doing their thing. 1048M was climbing south up Specimen Ridge and was soon going to leave the Lamar Valley area. Park biologists knew that 1109F, of the Junction Butte Pack, denned and had pups south of Specimen Ridge in the Antelope Valley area. It was amazing to watch this wolf literally climb up a mountain at a solid pace, only to go back down it for the sole purpose of bringing food to 1109F and her pups. When we lost him from view he was two miles south of us and was just a dot on the landscape, even when looking through my high powered spotting scope. (For reference, his location was the top left of the mountain in the background of the bison walking into Lamar Valley on the previous page.)

Upon losing 1048M over Specimen Ridge, I took a scenic drive to Pebble Creek and Round Prairie. I only saw scattered bison and pronghorn on the five mile one-way drive but it was such of a beautiful, sunny morning I wanted to enjoy it in my favorite places. I did a U-turn at Round Prairie and then headed back to the west. When I reached Tower Junction I took a left to head back to the Mount Washburn area. I was still impressed by the snow up at the top of Chittenden Road, a two mile dirt road that leads to the Mount Washburn hiking trail (see below). I scanned that area for grizzlies as they are often spotted on the mountain slopes.



Really cool cliff along the side of the road just south of Tower Junction near Tower Fall area.

Upon having no luck seeing any grizzlies in the Mount Washburn area, I headed back to Canyon hoping the traffic wasn't as bad as the previous day. This time I didn't stop at the visitor center and instead drove straight to South Rim Drive to see the Grand Canyon of the Yellowstone. The view from Artist Point (below) is always special. However, the parking lot was packed and I had to wait for a car to leave in order to secure a parking spot. That area was very congested compared to the northeastern part of the park where I had spent most of my time to date. A mule deer buck I sighted just before arriving at the parking lot area seemed unphased by all of the commotion.

I took a short hike along the Canyon Rim then left that area to head to Hayden Valley. This time the traffic was manageable and I was able to get to my favorite overlook of the valley. Grizzly Overlook is where thousands of people over the years, including myself, have watched the various wolf packs that have inhabited this central region of the park.

By noon most wolf action usually dies down throughout the park so I wasn't expecting much. In fact, there were no wolf watchers there at all. I did get my spotting scope out and scanned for wildlife. I saw scattered groups of bison, probably all bulls, as well as dozens of Canada geese in the Yellowstone River, ravens nearby, and a bald eagle on the ground next to the river. There is always something to see in Hayden Valley!





Different perspectives of Lower Falls of the Yellowstone River from Artist Point. This section of the river is called the Grand Canyon of the Yellowstone.





Hayden Valley panoramas. Below: Grizzly Overlook. Wolves are commonly observed above the water near the point of trees at the left center part of the picture.





Raven adult (left) feeding a nearly full-grown chick. Canada geese in Yellowstone River.

I left Grizzly Overlook at 12:38pm and drove further south through the valley. I saw two good sized herds of 50-75 and 75-100 bison cows and calves on the west side of the road so it was good to know that there were still sizeable bison numbers in the central herd. Over the years, bison (mis)management outside of Yellowstone by the park service and the state of Montana have slaughtered bison populations when they leave the federally protected park. Currently, there are less than <u>1,000 remaining bison</u> from the park's Central Herd, with the rest of the population living in the more northern regions of the park. Every year up to 20% of the bison population is killed by hunters at the park border or through trap and slaughter, all because the state of Montana refuses to treat them as wild animals outside of the national park.

I continue to find it astounding that our wildlife managers are always looking to control and limit wildlife populations; rarely, are wildlife – outside of national parks – protected just because they are wildlife. Sadly, the bison situation is a remnant of removing Native Americans from the landscape and is more of a cultural war than a biological one. Ironically, the state of Montana is now allowing Natives to kill bison as they leave the park, essentially partnering with local tribes to have them do their dirty business of preventing bison from being treated as wildlife in Montana.

The south end of Hayden Valley contains a geyser basin that I treasure. Mud Volcano (below) has some beautiful mudpots and hot springs and is usually not super crowded compared to places like Old Faithful that is mobbed by people on a daily basis throughout the summer. I took my time hiking this nearly 1 mile loop, enjoying the warm mid-afternoon sun. It is one of my favorite places to take pictures of geothermal features in the park.

Mud Volcano (left) is a mudpot, essentially an acidic hot spring that has a higher concentration of mud (dirt, rock and other sediment). Dragon's Mouth Spring (right) is a hot spring that has boiling water coming out of a mini-cave. The steam portion of the hydrothermal feature could technically be classified as a fumarole, which is an opening that emits steam and gases.





A couple of bull bison can almost always be seen in the middle of Mud Volcano Geyser Basin.



Mud Volcano hike including Churning Caldron (top).





Top: Black Dragon's Caldron (left) and Sour Lake (right) panoramic at the top of the Mud Volcano 1-mile loop hike. Bottom: Whenever I visit Mud Volcano I always walk across the street to get a picture of Sulphur Caldron, a very acidic area with a green hot spring (left).



South part of Hayden Valley viewed to the east of the road. The grizzly bear is actually in the middle of the picture below the tree-line about a mile away but I show him in the inset in the lower right for better clarity of the valley.

After hiking Mud Volcano and Sulphur Caldron basins, I drove back to the north through Hayden Valley. I only got to the second pullout from the south end before pulling over. There, I scoped and spotted a grizzly bear at 1:42pm. It was a large boar about 1 mile away at the eastern edge of the valley. He was walking north to south close to the tree line that demarcates the end of Hayden Valley. He was a speck on the landscape, and would not have been seen without using a high powered optic. Most grizzlies are dark brown so can be confused with bison from a distance, especially before zooming in on them. But there was no mistaking this animal, as he strutted his stuff like he owned that valley. He had the usual dark head, front, and rear legs but his ribs and body were light brown in color. If I spent more time in Hayden Valley I am convinced that he would be individually identifiable based on his body's color patterns. It didn't do justice to see that powerful omnivore simply grazing on grass but that is a big percentage of most bears' diets during early summer when grasses are their most nutritious.

Seeking to do another marathon day, after traveling through Hayden Valley, I turned left at Canyon Junction and drove the 12 miles west to Norris Junction. There, I hiked the 2+ mile Norris Geyser Basin. It had been a couple of visits since I had actually gone there, and the quarter mile traffic – literally out to the main road – made me wonder why I had bothered on this busy trip. It took me 15-20 minutes just to find a parking spot, but once I did I made sure to get 'my money's worth' (really, my 'time's worth') and hiked the whole basin aside from the short eastern loop which was closed for repair.



As I walked Norris, it was raining pretty hard when I got to Steamboat Geyser, the world's tallest geyser. Steamboat is anything but faithful in its eruptions, sometimes going for years without a single one while during other years it will burst multiple times. I only had a T-shirt on so I got pretty wet but the rain was an effective crowd control which I would take any day. I tucked my camera in my shirt which probably made me look a bit odd if anybody actually looked at me! This precipitation also ensured that I had rain on all but one day of the trip thus far.

It was a great hike. Similar to Mammoth Hot Springs, hiking Norris Geyser Basin is an out of this world experience where it feels like you are walking more on the moon than on earth. It is a very hot geyser basin and there is much open, exposed water and white, bleached looking substrate. Not many plants can survive there.

I drove the west side of the park from Norris to Mammoth on my return to the Northeast of the park. I stopped at Roaring Mountain, a large hillside fumarole with much steam emanating from its surface. I then stopped at Swan Lake Flat for pictures of that pretty valley before driving the final leg to Mammoth Hot Springs.

Just before coming into town and near the Upper Terrace Drive area of the hot springs, I got stuck in a 20 minute long black bear jam. It seemed to take forever to get through. It was another small bear on the side of a hilly and windy stretch of road which made it difficult to pass around cars. At that point, I had seen a good 25 bears so this was not a special experience for me. Eventually the bear got a bit away from the road and wasn't as photogenic. This caused some cars to leave and allowed me the space needed to get around the remaining vehicles.





Norris Geyser Basin



Norris Geyser Basin. Notice all the people at the top of the boardwalk in the lower right picture. Top left: Steamboat Geyser bubbling and boiling but not erupting on that day. Bottom left: Crystal blue hot springs.

Mini-geyser erupting. The different colors in the foreground of this picture are thermophiles, which are microorganisms that live at different temperatures in hydrothermal features. They are adapted to live in the heat. Fumaroles at Norris Geyser Basin. Yellowstone has 5 hydrothermal features in the park, which have all been described in this book. In addition to fumaroles, there are hot springs, mudpots, geysers, and travertine terraces (at Mammoth).

Roaring Mountain, off the main park road, wasn't really 'roaring' on this hot summer day. During other times of the year that I have visited, especially in the springtime, there is steam coming off the entire exposed ridge. It is a beautiful sight.



Swan Lake Flat has diverse views including Swan Lake and the Gallatin Range behind it when looking west (top). To the east, there is Bunsen Peak and flat, grassy country before it (bottom). I hiked the trail up Bunsen Peak on my penultimate day in the park, July 5 (Day 18).





Above: The famous Roosevelt Arch in the town of Gardiner. Right: View of entering the park from the North Entrance in Gardiner. As I got to Mammoth I realized that it had been four days since I had filled up my gas tank. This felt great when compared to the frequent fill-ups earlier in the trip. I had *only* driven between 90-180 miles a day for the past 4 days.

It was getting close to dusk but I decided to leave the park and head to Gardiner to get gas and a few food items, which are both much cheaper than in the park. I also looked for a license plate light bulb but all hardware stores were closed early. I would have to try and make it another night without having my license plate lit up.



After gassing up, I headed back into the park and got through the town section of Mammoth at 6:15pm without a hitch, but then got into yet another black bear jam just past the Mammoth High Bridge on the outskirts of town. It was a pretty, little brownish bear. I had other places to go and fortunately this was a low volume traffic jam so I rapidly passed by, never fully stopping.

I stopped at Lava Creek Picnic Area at the western edge of the Blacktail Plateau and made dinner by a fresh water source that enabled me to clean my dishes after I finished eating a large can of vegetable baked beans – holy fiber! I ate quickly so I could try and reach the Lamar Valley as soon as possible. It was getting late.

It was smooth sailing until I got to Tower Junction where, 75 feet off the road, there was another black bear. I noted in my journal that, "Black bears are everywhere in the park this year". It was definitely the most I had seen in a 4 day stretch of my time spent in Yellowstone.



Town of Gardiner at Roosevelt Arch. Notice the different spelling between the town and the river.

Similar to the previous black bear sighting, I was able to navigate pretty quickly past the cars and this bear. I didn't look long enough to see if it might have been a bear that I had watched earlier in the trip at Tower.

I finally arrived at the Lamar Valley bison carcass just before 8pm. "Good grief", I noted, "what a loooong day". Despite hoards of people parked along the side of the road, I was able to find my friend Laurie Lyman. Laurie, a retired school teacher from San Diego, has had a second house in the park for over 10 years. She had just returned to the park on this day so I hadn't seen her yet. She laboriously writes a daily wolf report for the website <u>Yellowstone Reports</u>. Even during the periods that she is not in the park, she gets emails, phone calls, and texts from wolf watching friends, and keeps the whole world updated on the happenings of wolves in Yellowstone. It is a labor of love, like Rick McIntyre's dedication to studying the wolves, that she has completed on a nightly basis for nearly a decade and a half.

Just before I arrived at the site, the grizzly mother and 2 yearlings from earlier that morning approached the carcass but turned around by the river southeast of the carcass. There were just too many people for the sow's comfort.

Within 20 minutes, however, I found the funky male grizzly who was running all over the place this morning. He was very noticeable with a lot of body fat and a blonde flabby neck that almost looked like a collar as it swayed side to side.

He galloped in from the east and would stand on his hindlegs every now and then to look toward the carcass area. Moving to his west, he crossed two stretches of river but as he got closer to the carcass a few children were annoyingly loud, literally yelling unrestrainedly whenever the bear did anything. I tried to talk to them to 'please quiet down' but it was too much for the bear, who turned around and literally dove into the river at the bend (see right).



The large grizzly ended up swimming back to the southeast, having to cross 3 stretches of the river from that location (inset picture would be to the top left of the body of water). He quickly made it to the southern part of the Lamar. Frustrated with the noise of the crowd, and having already talked with Laurie for over 45 minutes, I decided to leave at 8:46pm. It was just too loud and I was so tired from another full day. Plus I was traveling up to Cooke City and wanted to get there at a decent time. I planned on spending the night for the rest of the trip up in 'Cooke'. After leaving the people in the eastern part of Lamar Valley, I cruised through the Soda Butte Valley. In the hills to the north of the road I saw a group of 20 bison including at least 5 calves. I slowed down to enjoy the dusk sighting but kept on moving to save time. As I entered the western part of Round Prairie I saw a handsome black bear north of the road. This was very near where I saw one on July 1st as I was reading in the car and a car stopped to point it out to me. It looked like the same individual. I got some good dusk photos of it (below).

I made it to Cooke City at 9:15pm but before retiring for the night I did one last email check at the Chamber of Commerce. I could have really used the sleep but it was nice to be updated with news and other miscellaneous items on my phone. At 10:15 I pulled into an ad-hoc lot near an overgrown baseball field at the edge of town where there were a half dozen other cars. I positioned my vehicle toward the woods so headlights wouldn't disturb me. I quickly fell asleep.

By this point in the trip I was used to sleeping in the car and going through the rigamarole of taking the headrest off, moving items in the backseat so I could fully recline my seat, and then putting a pillow or clothes on both sides of the seat so I could roll over in my sleeping bag and stay relatively comfortable. This positioning also allowed me to stretch my legs and not feel crunched up while sleeping.

This strategy continued to have a lot of benefits on this trip. In addition to saving me time in the morning since I could get moving shortly after waking up, the elements were nonexistent in my truck compared to a tent. As if Mother Nature wanted to prove a point to continue sleeping like that, it rained heavily a few times over the night. It was nice to not have to worry about it as I was much more concerned with getting at least 6 hours of sleep which is ~1.5 hours less than my normal night's rest.



Day 17: Another Amazing Day of Scenery, Wolves, and Bears



The heavy rain ended at 4am on July 4th. That made it 16 of 17 days with precipitation! I didn't even need an alarm as the rain was so forceful. It was difficult to sleep. Because my alarm was set for 4:26am, I closed my eyes for a few more minutes, but wanted to get going as soon as possible after it rang so I could get to the bison carcass at first light. Curiously, two other cars were also leaving the lot at this super early time. I don't know what it is with being in a national park but I seem to require 2 hours less sleep at night, especially if I can take a short nap during the day. It probably has to do with being so amped up for the coming day's action that my body is naturally ready and wired to go.

After quickly downloading my new emails at the Chamber of Commerce near where I slept, I drove into the park, arriving at Hubbard Hill at 5:10am. Rick McIntyre was already set up in low light conditions. He had an adult grizzly on the carcass and 2-3 wolves next to it. As it got lighter, we could then make out 8 wolves. Six of the wolves were black including 996M, 1047M, 1048M, the 2 yearlings, and an adult black (in addition to the alpha female there was an uncollared black adult male in the pack and they were difficult to tell apart). Two of the wolves were grays. 907F and 969F were sisters who both gave birth 2.5 months earlier in mid-April in a den with full visibility from Bob's Knob at Slough Creek.

The grizzly left the carcass 10 minutes after I arrived and headed southeast where two ~3 year old bears (likely siblings) were wrestling out in an open grassy area near the bend in the river. Nobody saw them initially because we were all focused on the action at the carcass. But as the bigger bear, we assumed a boar, approached them they ran away. Fortunately, the big guy wasn't too concerned with them and just passed by, then swam the river channels heading to the southern part of Lamar Valley.

With the larger grizzly out of sight, the two bears then ran right to the carcass at 5:30am. Seven wolves (5 black and 2 gray) were already feeding on the bison, which was noticeably reduced in size from overnight feedings by both carnivores. The approach of the bears got the wolves snippy (see picture on previous page) with them briefly harassing the bears. 907F chose that time to pin her sister 969F to prove her dominance. Rick noted that it was a bizarre time to display such behavior.

Things quickly settled down and the bears and wolves fed together for ~20 minutes without much aggression. With all the animals having their heads down in the sagebrush feeding, picture opportunities weren't ideal despite how close they were. The animals had clearly fed overnight as they appeared full. Slowly the bears walked away from the food source, but then ran to the river once they came to the grass just past the sagebrush. Most of the wolves left the carcass area too and hung around the cottonwoods near the river. Only 1048M and a black yearling stayed at the decomposing bison.

Wolves feeding at dawn (top left). While the picture isn't the highest quality, it is worth showing the difficulty of obtaining a picture in low light with all the wolves having their heads down. Bottom right: As it became lighter, the animals were easier to observe with 3 wolves at the carcass. Bottom left: two grizzlies feeding on the carcass with heads down. At 6:30am, with the 2 bears out of view and those 8 wolves spread out, 3 things happened in rapid succession:

1) We found the male gray yearling out in the riverine area with the others. He is a very handsome wolf with lots of black and silver markings on his coat similar to many eastern coyotes that I have studied in Massachusetts.

2) A 7th black was seen well to the east. This one was uncollared and it ensured that we had 10 of the 11 adult wolves in the Junction Pack; all but 1109F who was denned over Specimen Ridge.

3) A sow grizzly with 2 yearlings came into view from the west and fed for about an hour. The wolves didn't bother them much after two initially surrounded them. After a couple of minutes, we kind of forgot about the bruin trio less than 200 yards away from us because we were watching all the wolf action further out. Also, the bruins were feeding with their heads down in the sagebrush which wasn't the most exciting option to watch at the time.





Wolves and bears interacting as the bear family approached the carcass site (bottom left). Wolves howling from near the river (top right) as a bald eagle and raven pair look on (bottom right).





The bear cubs made sure to stick close to their mother when they were near the wolves, yet they had their heads down most of the time when feeding on the bison carcass (next page).





The sow and 2 cubs left the carcass area at 7:30am after a solid hour of feeding and headed to the southwest like the previous morning. I lost track of them when they came to a group of cottonwoods by the river corridor.

The animals kept us busy because at around the same time 7 wolves swam the river channel going southeast, including all 3 grays (male yearling, 969F, 907F) and 4 of the blacks (996M, 1048M, 1 yearling, and 1 adult). They all traveled east for about a half mile as if they might be going on a territorial boundary patrol, but then abruptly turned around and went southwest, eventually climbing the foothills of Amethyst Mountain, going way up slope into the woods.





Six wolves traveling west about to go out of sight into the woods on the north side of Amethyst Mountain. The gray male yearling is the wolf on the far left and an adult female gray (969F or 907F) is squat urinating (SQUs) just in front of him. SQUs and flex-leg urinations differentiate a female from a male canid. While the 7 wolves moved into the southern part of Lamar and went out of sight into the woods, 1047M, who was bedded in the flats, got up and joined them. They were southeast of him so it was interesting to see him travel, swim the river, then head in that direction to find them. It is hard to know if he saw, smelled them, or if he knew ahead of time where they were going. It seemed likely that they were going to bed in the cool forest during a warming summer day.

As I was scanning the southern part of Lamar and up to Specimen Ridge (including Amethyst Mountain), I managed to find another sow grizzly with two smaller cubs of the year (called 'COYs') way up at the top of Specimen at 8:45am. She was about 1.5 miles away and was digging in rocky areas possibly trying to unearth moths and other insects.

Up to that point in the day I had observed 10 wolves and 9 grizzly bears all from the same place. "Amazing", I wrote yet again in my notebook.

The action wound down around then with a lot of the veteran wolf watchers satisfied with these 3.5 hours of observations. We all went our separate ways. I drove west for about 7 miles as I wanted to relax in Little America for a few minutes. I especially like that area to observe pronghorn and bison, often up close like I saw with the bison herd crossing the Crystal Creek parking lot on my first day in the park. I hadn't been there much during this trip because of all of the wolf and grizzly action to the east in Lamar Valley. On this day, a pronghorn happened to *find* me as I wrote and it approached very close to my parked location (next page) where I spent 20 minutes writing. I also saw quite a few pronghorn groups in the Lamar and Little America.

As I was pulled over and had time to reflect on the morning, I got to thinking about the wolves. It had been an amazingly busy first 4.5 days in the park so I took for granted the vast knowledge I had about this pack. All the wolves that have a number are part of a research study by the Yellowstone Wolf Project lead by Dr. Doug Smith, of which Rick McIntyre was an employee for over 20 years. The team captures the wolves during the winter by darting them from a helicopter or shooting a net over their bodies, then sedates them. All individuals are given a number in order of capture in the Greater Yellowstone Area (including southwestern Montana, northwestern Wyoming, and Yellowstone). The fates of these wolves are monitored over time as are the packs to which they belong. The study has produced an amazing amount of original research in its first 25 years and, having an interested public and a large area where the wolves are protected from human exploitation has greatly aided the project. Bar none, Yellowstone is the best place to observe wild wolves in the world because of their visibility and all the people who come to watch them.



After finishing my notes and reflecting on my time in the park, I departed Little America and headed west all the way to the Blacktail Plateau. On the way, I saw a black bear uphill on a ridge above Elk Creek. This area is about 2 miles northwest of Tower Junction. It wasn't super close so I didn't bother taking pictures since I had taken enough by then!

When I arrived on the Blacktail it was before 10am and I was surprised that there wasn't a single wolf watcher. Obviously word was out to go to the Lamar Valley to see the wolves and bears there. I scanned the beautiful valley for only ~10 minutes looking for the 8-Mile Wolf Pack then, not seeing anything besides scattered bison bulls, turned around and headed east to hike the Lost Lake Trail.





The Lost Lake Trail is at the Petrified Tree parking lot at Elk Creek. It was a short 10 minute drive from Blacktail Plateau. Similar to the Tower region, it is a prime place to see black bears and, without fail, I saw another one. It was above the quarter mile driveway to the trailhead, and was a nice little one with cinnamon tipped fur over a mostly black body. This is an area of much new growth following the well documented 'Fire of 1988' and the bears clearly like the vegetation and other food sources in that region.



I had a nice surprise of seeing fresh black bear tracks in the mud when I started out on the hike. Having just seen the maker of those tracks a couple of hundred yards to the west, it was nice to know that the bear was going in the opposite direction of my route. I made it to Lost Lake in less than 10 minutes. It is a beautiful lily pad dotted lake hidden behind a ridge.

After a mile, and past the lake, there was an opening where you could see way down into Tower Junction. There, the trail descended to go to Tower and then you could climb back up to make a loop of it. Not wanting to go down and then up, I turned around and completed a relatively flat, easy 2 mile hike. I always expect to see a wolf or grizzly bear back there but I've only seen bison in the past, and the black bear on this day.

When I got back to the parking lot I took the short walk over to Petrified Tree to see the hard stone textured remnants of an ancient redwood tree that is millions of years old. Yellowstone was a tropical, warmer area back then.







Lost Lake



It was only noon when I finished hiking, so I decided that Lost Lake was a nice warm-up for a longer hike. The fossilized remains at Petrified Tree (see right) got me thinking that I haven't actually hiked the unmarked Crystal Creek Trail to the top where there are some great petrified trees, as well as an amazing view of Little America.

On the short 5 mile drive east to Crystal Creek I managed to get into two more bear jams. One was at the outlet of the Petrified Tree Road. I didn't spend any time looking but assumed it was the same bear I had seen when I began the hike. The second one was right at the Yellowstone Bridge, just east of Tower Junction. It was at a poor angle down a hill. Traffic was manageable to get around so I decided to drive past that one. Just before arriving at the Crystal Creek lot, I managed to get into a bison jam in the middle of Little America. The big beasts couldn't decide which side of the road they wanted to be on and many tourists just parked in the middle of the road like it wasn't a main thoroughfare.

I was craving some protein, and more than my standard peanut butter and jelly lunch, so I fried up some eggs before starting the hike. They were delicious and, even after 2.5 weeks, my chickens' eggs were still palatable.



I chugged a bottle of water so I didn't have to carry one on the hike. I left my car at 12:55pm with camera around my neck and bear spray in my short's pocket. In the very rare chance that a bear chases or attacks you, especially a grizzly, this high powered form of pepper spray can literally stop a bear in its tracks. Spraying a bear can save both animal and person. Importantly, it is regarded as more effective than a firearm in close range situations which are typical of a bear attack.

I climbed all the way to the top of Crystal and saw the Specimen Ridge Trail around the middle of the 17 mile long hiking trail. It was an amazing view. I could even see the dots of groups that I passed on the ascent up the rather steep mountain. I felt like bionic man in the park, demonstrated by having limitless energy, after previously having just done another hike.

I was able to take some great pictures of the scenery as well as the petrified tree stumps. And having no gear with me on the way down proved beneficial as I basically bounded down the mountain, getting back to my car at 2:35pm. Once I opened the driver's side door, the first thing I did was chug another bottle of water.

View of Little America on the hike up Crystal Creek.



Little America with the park road bisecting the open valley.

Bison near the road with people stopped to look in Little America. I was climbing Crystal Creek and took a telephoto image of this scene on my hike up the mountain.



The higher one climbed, the better the view was with the Lamar River (foreground just north of the road) and Slough Creek (background, just before going up the ridges at the top of the picture) in view. The two rivers merge at the center of this photograph then head west to join the mighty Yellowstone River.



Petrified tree stump overlooking Little America

Specimen Ridge

The top of the Crystal Creek Trail was steep both going up and coming down, but provided incredible views, especially for a relatively short 4.5 mile hike. The trail isn't on a map in an attempt to reduce human activity at this beautiful and rare area (next page).





A petrified tree stump with a pretty good view!

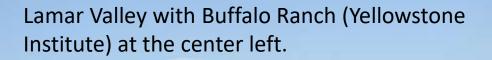
Upon summarizing my notes, I realized that it was still early so at 3pm I drove a couple of miles east and took some scenery pictures of the Lamar River in Lamar Canyon. I find the river tucked in the steep canyon to be very pretty. In fact, of all of the 3,000+ images I took during this trip, I've had a picture of the Lamar River as my desktop background (see picture on next page) for nearly a year.

After taking those images I drove another mile to the east and stopped at Fishermans Overlook. I was planning on taking another swim there but there was a bison jam with 10 bulls north of the road and ~50 cows/calves between the parking lot and the water. I am daring on many occasions but this was not an appropriate moment to be such so I continued east in my car to Dorothy's Pullout for pictures. There were hundreds of bison on the valley floor.









ON STREET

Lamar Canyon

Lamar Valley in the afternoon with Jasper Bench above it.

Bison were all over the flat lands of the Lamar Valley.

After taking images of the bison, I realized it was only 3:20pm, even after all that I had done. It was a perfect place to take a nap in the shade of my car during a hot and sunny early summer day. After reading for a bit, I conked out for about an hour. I clearly needed the rest.

It was still warm when I woke up at ~4:30pm so I continued my drive to the east and stopped at the Pebble Creek Outhouse area to take a refreshing swim in the cool water stream. I felt so much cleaner after the dip. A rather large family group relaxing in the





area found it amazing that I was swimming in the same stretch of water that they were barely putting their feet in (see both pictures on this page).

After that 'shower' I drove a few more miles to the east and stopped at Soda Butte Picnic Area to make pancakes for dinner. Pancakes are a project to make while camping but they taste so good when hungry. And having the river next to the picnic area allowed me to clean my cooking supplies sufficiently. I got back to Cooke City at a reasonable 6:30pm and was able to purchase a license plate light bulb for only \$2.35 at the Exxon Station. It was great to have the peace of mind to have that fixed. I next drove back to the visitor center (right) and got caught up on my e-mail and messages before dusk, then went to unwind at the Miners Saloon by having a couple of beers (left hand side of picture below). It is a modern version of a Wild West bar. I've always appreciated the people there and patronage it every time I visit the area.

It was July 4th. I was told earlier in the day that Cooke City had a great fireworks display and given my extended nap in the Lamar, I had plenty of energy to watch it. I was impressed with the amount of people there – although it was summertime for a tourist town. Once it became dark, the festivities began. Many people had their own pyrotechnics in addition to the town's. It was a good show!











Following the display, and once the streets finally cleared, I sidled up to the baseball field just a few hundred yards from where the fireworks took place. I joined four other vehicles already there. It was past 10pm and I was ready for bed. I needed to rest up for my last full day in the park.

Day 18: The Giving Carcass nears its End

My alarm went off at 4:30am and I initially had trouble waking up on July 5th. It had rained again over the night and into the early morning which woke me a couple of times. I stopped keeping track of all the rain and my streak of only missing precipitation on one day all trip, which was the afternoon I left American Prairie Reserve *to avoid rain*. I was more concerned with getting back down to the carcass in Lamar Valley, which I did at 5:18am. Rick McIntyre, old faithful of a man, was already there and set up with his chair and spotting scope. Rick typically skips social events, like the fireworks, so he can be fully focused on observing the wolves. It comes in handy for those '4 in the morning' wake up calls.

There was a large collared grizzly bear on the carcass and 2 other grizzlies to the southeast near the river at daybreak. The bear duo appeared to be the same adolescents as the previous day. They were spread out this time and soon walked south into the forest at the southern part of Lamar Valley.

At 5:30am, we had our first wolf sighting of the morning. The black yearling female approached the dead bison, circling from the south. She squat urinated, which verified her gender, then went to the food source. Soon after, 1048M stood up in the sage near the carcass. We didn't even notice him until he moved.

Something spooked the grizzly at the carcass causing him to leave the area. He hightailed it to the southeast. We couldn't determine if it was the wolves converging near the dead cow bison, the growing amount of light, or something else that scared him off. The big bruin crossed the Lamar River channels and disappeared in the rolling hills in the southern part of Lamar Valley, near where the other two bears were sighted.

1048 mostly stayed bedded at the sage/grass line while the yearling went to the carcass. There definitely wasn't much left. It was more a pile of bones at that point, but she did manage to grab a piece of it and brought it about 100 feet to the southeast to feed.

Both wolves stayed in their respective locations for another 15-20 minutes. Then, at 5:45am, they separately traveled southeast with each swimming the 3 river channels. The yearling initially following 1048M but then 1048 headed east and out of sight at 6:30am while she went southeast up into trees uphill at about 6:40am. A group of 15 pronghorn watched her travel south until I lost sight of her.

Having a relatively slow morning and knowing that the carcass was nearly gone, Rick and I traveled to Slough Creek at 6:48am. There were hundreds of bison in the central Lamar flats and another herd of ~100 that created a traffic jam by Coyote Overlook. We finally arrived at Slough and thoroughly scanned the area but could not find any wolves.

Bison on the move in Lamar Valley.





'Bison jam' in Lamar Valley. Similar to vehicles, bison travel most efficiently on roads when they want to get from point A to B. This often causes an extensive build up of traffic much to the chagrin of local residents and long-time park visitors.



View of Slough Creek and surrounding mountains from 'Bob's Knob'. The Junction Pack has denned in the open on multiple years (arrow and inset picture show denning area). The den site is a little over a mile from the observation area.



At 7:48am, I arrived back in the Lamar and parked at Dorothy's Overlook. Rick and Jeremy Sunder-Raj already had 1048M. At some point he turned around and traveled southwest as he was again climbing to the top of Specimen Ridge south of Jasper Bench. We all knew he was returning to 1109F to feed her. We followed him for over 20 minutes as he climbed the same ridge that Bill Wengeler and I watched him travel on just two days earlier. It is amazing to consider that he goes back and forth to 1109F's den every day or two on the other side of a sizeable mountain. 1048M trotted past 2 elk and 1 lone bull bison on his climb. He was on a mission, clearly focused on getting to his destination. Eventually he disappeared over the ridge and went out of our view.

Satisfied with seeing wolves, Rick headed east at 8:15am to spend the day writing. With most of the other wolf watchers dispersing, I stayed in the small parking lot admiring the view. I then made a relatively early breakfast for me as I usually wait until around 10am to first eat. However, I planned on hiking somewhere in the western part of the park and thought it would be good to have my oatmeal and hot chocolate early so I could start my hike when I arrived at the trailhead.

This was my penultimate day in the park, so I wanted to make the most of seeing all the sights that I may have missed. I planned on leaving the following morning after wolf watching. It is always bittersweet at the end of my Yellowstone trips as I don't want to leave my favorite place but I do have other life responsibilities to attend to.

I decided during breakfast that I was going to go to the Mammoth area for my last solid hike. I hadn't been to the southwestern part of the park, including Old Faithful, during this trip. However, I decided against it because not only was it 2 hours each way, but the traffic in July is terrible down there.

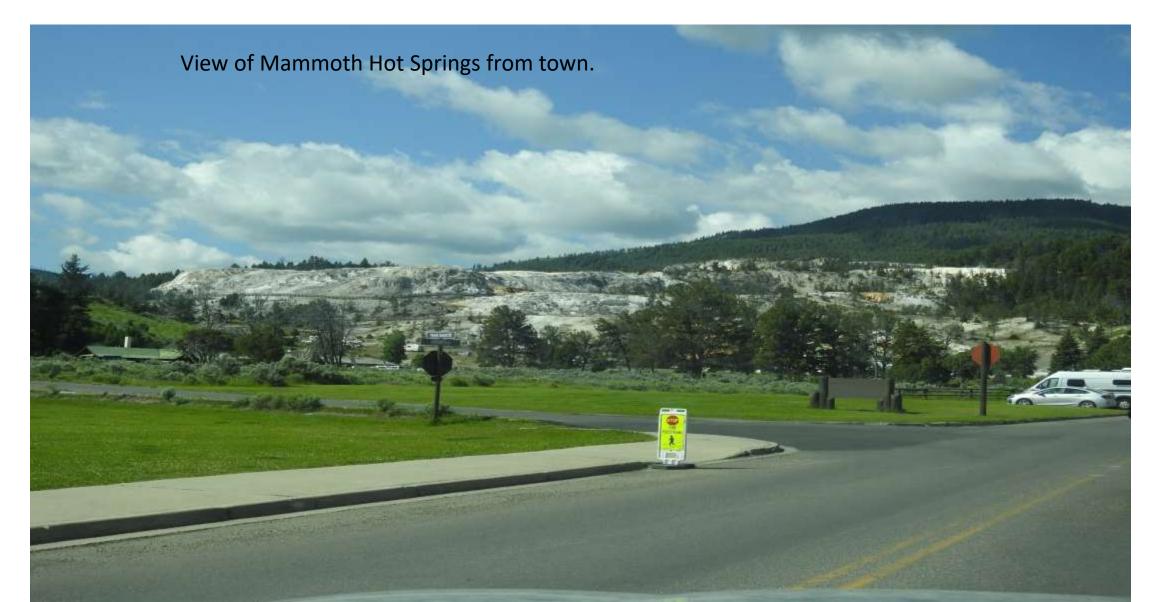
True to the theme of the trip, I had more black bear sightings on the way including a cinnamon-phased one right below Hellroaring Overlook a few miles east of the Blacktail Plateau. I then scoped 2 black bears a third of the way up an open slope north of the very eastern part of the eastern Blacktail Pond. I noticed them with my naked eye as I drove by because they were good sized. They foraged on a hillside in sagebrush and grass ~50 meters apart. It surprised me to see them in such open country, which is more typical of their larger, more aggressive grizzly cousins In fact, at first I thought they were going to be grizzlies until I viewed them through my spotting scope.

Black bear pair above Blacktail Ponds. The "X" (above) marks their location from a distance.





After a quick visit inside the Mammoth Visitor Center to have one more look at their taxidermy displays and to check my email, I headed past Mammoth and went to the Bunsen Peak hiking trail, arriving there at 11am. It is a 4.2 mile up and back hike that offers great views of Swan Lake Flat and the Gallatin mountains behind it, Mount Everts outside Mammoth, the town of Gardiner to the north, and Blacktail Ponds and Plateau to the east.



Golden Road from Bunsen Peak Trail with Mount Everts in the background (middle right). This area is a few miles north of Mammoth. Bottom: Waterfall and stream next to the park road in Golden Gate Canyon.

The hoodoos just above (north of) Mammoth. They are a large boulder field as a result of an earthquake that blasted Terrace Mountain. Notice how small the cars appear in this land of huge rocks! Below: Mammoth Hot Springs and the town in foreground and the town of Gardiner in the (middle center) background five miles to the north of Mammoth.

Gardiner

Mammoth



Different perspectives of the Swan Lake Flat area (top two) and Hoodoo and Mammoth area (below).





Pika (left), denizen of the high, rocky country. Weather station atop Bunsen Peak (8,564 ft).



Top left: Blacktail Ponds and Blacktail Plateau. Top right: Swan Lake and Gallatin Range Mountains. Bottom: Mammoth High Bridge going over the Gardner River.



Gardner River viewed to the south of Bunsen Peak (right) and view of Bunsen Peak from the flats by the road and Swan Lake (left).





I finished the Bunsen Peak hike at 12:30pm. I am always so exhilarated with the views that the hike offers in 360 degrees! Following that adventure, I decided to drive the Mammoth to Norris Road back to the south. Soon after, at 12:46pm, I saw 3 elk in the western part of Swan Lake Flat grazing and 2-3 more in the trees. Not a bad sighting, I thought, for the middle of the day. They were all females and likely had calves stashed nearby. I hadn't seen that many elk on this trip outside of Mammoth, so it was good to see a few more. Elk normally summer in the high country and I had spent more of my time during this trip in lower elevations watching wolves.



A half mile south of the elk I saw a mule deer doe at the edge of the road. She didn't look too concerned as I cruised by her. I was hungry following my hike and my fast from a couple of days before and was ready to eat lunch. My metabolism often kicks in a day or two after I break a 36-40+ hour period of not eating.

I arrived at Sheepeater Cliff Picnic Area and had two peanut butter and jelly sandwiches. They had never tasted so good! The cool rock formation at this site, and surrounding area, are a series of exposed cliffs made up of columnar basalt when lava was deposited about a half million years ago during one of the periodic <u>basaltic floods</u> in <u>Yellowstone Caldera</u>. It was later exposed by the <u>Gardner River</u> which flows right by the picnic area. This is an ancient site, named after a band of Shoshone Indians which made it even more magical.



Upon getting fuel back in my system, I drove further south, stopping at a few thermal and natural features including North (top picture) and South (bottom) Twin Lakes. Wolf watchers occasionally spot wolves at these two water bodies. I had no such luck on that day.

My travels then took me south past the Norris Junction area and down to Artists Paintpots. Like Norris Geyser Basin from two days before, there was over-flow parking. It took me some time to secure a parking spot before I hiked the 1.25 mile loop where I was able to see some of my favorite mudpots and beautiful scenery.



Artists Paintpots hike with hot springs and fumarole in foreground.





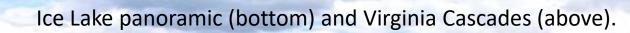


After visiting Artists Paintpots, I drove back to Norris Junction and took a right to head east toward Canyon. On the way, I took the one-way (eastward) Virginia Cascades Road to get fantastic views of the falls.

I came back to the main park road and soon after stopped on the north side to hike Ice Lake. The Ice Lakes Trail was flat and easy going. I went ~1.5 miles each way which took me east of the pretty lake and to where the trail crossed over the Gibbon River. It was a place I hadn't been to before and I somehow had the energy after two other hikes that day to put some more miles on my running sneakers. I used to hike with boots, and I still do, but I found that the lightness of running sneakers makes it more comfortable and faster for me to get around. Plus it allows me to jog in places to save time.







with the sale of the state

I was surprised by the amount of deadfall, a result of the 1988 fires, on the trail (below and next page), in Ice Lake (previous page), and even over the Gibbon River (right). It was a quiet area and I looked around each forested bend to ensure that there were no bears. For safety purposes, I had the bear spray ready to use in the pocket of my shorts just in case I needed it.

I returned back to the car at 4:23pm and drove straight to Roosevelt Lodge at Tower Junction in a respectable 45 minutes. The General Store has a great ice cream freezer with \$1 huckleberry ice cream sandwiches that my son and I frequently purchase when I bring him to the park. Given that I was alone on this trip, I had not yet gone there. Since I had my own car, I waited until the last day and purchased 10 Yellowstone themed beers as souvenirs for family and friends. I just barely had enough space in my vehicle for such important cargo.







I was having a great day. It had been different from my other ones on this Yellowstone trip. I observed wolves but stopped looking for them early which gave me the time to do 3 very different hikes. Plus, I was able to spend over half the day on the west side of the park.

After grabbing the beer (right), I was well on pace to get back to Silver Gate before 7pm. Rick McIntyre was speaking at 7:30pm about his first book on the Yellowstone wolves (which was released 3 months later in October 2019). I was excited to attend.

From Roosevelt Lodge, I drove east, spotting a black bear a couple of miles to the east by the Specimen Ridge Trail near Junction Butte. I had a few sightings from there this trip and reasoned that this individual was a repeat sighting.

Once reaching Lamar Canyon, I cooked dinner overlooking my favorite stretch of the Lamar River. The parking wasn't great where the river was most visible but I was able to pull off the main road just enough onto a gravel spot overlooking the water. Cars zoomed by my pickup truck. Besides the vehicles it was hard to imagine a better spot to eat (see next page).

After dinner I was prepared to drive directly to the Northeast Entrance. Yet I got into two more black bear jams. The first was a quarter mile east of where I ate. It was a cinnamon-phased bear (see picture on next page) north of the road in Lamar Canyon. It was foraging on the slope and moving east toward Lamar Valley. The other sighting occurred in the western part of Round Prairie where I had already had multiple sightings of bears. I assumed it was a repeat individual from earlier in the trip.



Both bears, as is typical when naturally foraging, had heads down and bodies not facing the camera which didn't make for good picture opportunities. In addition to the bears, I saw 5 pronghorn in the eastern part of Soda Butte Valley shortly before I saw that second bear. That is fairly far east for pronghorn as it gets mountainous after (east of) Round Prairie and they prefer flatter terrain. I suspected they would hang out where they were or move back to the west.

On my way out of the Northeast Entrance I saw 2 mule deer right by the exit gate of the park and then another one just before Silver Gate. I commonly see mule deer in this high country in the summer. There is no doubt that the grass next to the roads is a major draw for these common ungulates.





I arrived at Silver Gate and the Ranger Rider Lodge at 7pm, a half hour before Rick's speech. There were a lot of people there. I counted over 100! I was quite impressed that many long-time wolf watchers attended, clearly timing their visit to be there during his presentation. I was fortunate to time my journey to still be here on this night.

Seasonal Ranger John Kerr, who formerly worked for PBS in Boston, introduced Rick. Rick, as he always does when talking to groups, spoke off the cuff with no slides or anything. His talk went for a little over an hour, and focused on his first book about Wolf 8. These were the first 5 years (1995-2000) of wolf restoration.

He started with a background of first working in Yellowstone as a 'Wolf Interpreter', the first of its kind for the park service. He became a resident of Silver Gate in 1997, moved there year round and worked full-time in the park starting in 1999, and bought a cabin – his first owned home – in 2003, that is within a short walk of where he was talking.

Wolf 8 was born in 1994 in British Columbia and was the smallest and slowest of 4 brothers. He was often picked on by his packmates. The pack was captured in the wild and moved to Yellowstone in early 1995. They spent 10 weeks in a holding pen to acclimate them to Yellowstone in the hope that they didn't return north to Canada upon release. The pack was named the Crystal Creek Pack based on the stream near their pen. Subsequently, naturally forming packs were named based on a prominent landmark in that social unit's range (e.g., "Druid Peak", "Junction Butte", "Lamar Canyon").

Rick McIntyre "Wolf Man"

PARK

THIS FRIDAY-JULY 5--7:30PM @ THE RANGE RIDER'S LODGE IN SILVER GATE, MT

Don't miss wolf expert RICK McINTYRE's talk about wolf #8 and other wolves that he has observed since reintroduction. Living near the park's Northeast entrance and known as the number one ground observer of wolves in the world, Rick is out on the land every day elevating the experience and knowledge of all. He is now writing three books and has produced over 12,000 pages of field notes about wolves. Be sure to attend!

The bar will be open.

Wolf 8 and his pack lived in a prime hunting ground using both the Lamar Valley and Little America areas, which had an excessive elk population in the mid-1990s. While the pack of 6 functioned efficiently in 1995, 8M was non-distinguishable given his small size and submissive behavior. A turning point for Rick was when he observed 8 stop and confront a grizzly bear across from the Lamar Institute. Two of his brothers stole a bear-killed elk calf and ran off with it. Wolf 8 put himself between the bear and the wolves so they could escape unharmed. Besides the bear, Rick was the only one who observed the grizzly stop in its tracks while the wolves made off with its food. Yet when 8 caught up to his two brothers, they didn't share their prize with him.

In October 1995, at just 1.5 years old, he joined up with a widowed wolf 9 whose mate was shot outside the park. Park management captured her and the 8 pups she gave birth to and brought them back into the park to a pen behind the Institute along Rose Creek. When researchers saw 8M visiting the captive pack they released them and the rest was history; 8 and 9 established a long, tight bond and were a formidable wolf pack for years in the northern part of Yellowstone. That area is called the Northern Range, because the northern part of the park is lower in elevation and the park's ungulates winter here because it gets less snow than the rest of the park.

The second half of Rick's talk discussed wolf 21M and his exploits. He was born into the Rose Creek Pack, and was one of those 8 pups rescued and brought back into the park. Wolf 8 was his step-father and the two had a very close relationship. The two often hunted together, bringing food back for two different litters of pups.

Wolf 21 left the Rose Creek Pack at ~2.5 years of age and took over as the alpha male of the adjacent Druid Peak Pack. The irony of 21's new position is that the Druid Wolves killed 8M's father and likely the Crystal Creek's 1996 litter. While 8 had already left the pack to become the dominant male of the Rose Creek Pack, his mother 5F and an assumed son (genetic data indicated that was not the case) left the Lamar Valley and traveled south into the Central part of the park where they became known as the Mollie's Pack. The Mollies are still in existence, 25 years later.

21 was a large wolf who was known to be the 'heavyweight champion of the world' according to Rick, but was unique in that he never killed a rival wolf. Wolves killing other wolves is one of the most common causes of death for wild wolves. Wolf 21 and his long-time mate 42F led one of the most famous wolf packs of all time. Scores of documentaries were produced on the Druids with Bob Landis filming most of them. It was amazing to listen to Rick talk by memory. He has an encyclopedic knowledge of the Yellowstone wolves and spends most of every waking hour thinking about and studying them. He characterized wolf 8M's qualities as having "duty and responsibility" and 21M's as "loyalty and respect".

The climax of his talk, and of his first book in the Yellowstone wolf series, was when 21's and 8's packs confronted each other. While I don't want to spoil the book, I will say that both the behavior of both wolves was fascinating as they lived up to their reputation.

Rick's observation of 8M's courage, despite his more diminutive size, was one of the bravest things that he had ever seen. While Rick has called 21 "the greatest wolf that has ever lived", he finished his talk by getting chocked up and correcting his earlier statement, saying "The greatest wolf wasn't 21, it was 8M". The crowd was also emotional after Rick's talk and it was amazing to watch so many people affected by the lives of the wolves, as well as by the person who has most persuasively told their story.

Rick McIntyre seated (far left) while John Kerr introduced him.



I stayed for a good half hour after Rick's talk. So many people wanted to speak with him and thank him for all he has done to further the knowledge of Yellowstone wolves. After the accolades ended, I walked with Rick back to his cabin and gave him back my bear spray. Because I normally fly to Yellowstone, and you can't travel with it, Rick kindly holds onto it for me. Since I was leaving the park in the morning and it often gets hectic during mid-morning wolf observations, with people sometimes going every which way, I figured it was easiest to give it to him then.

I left Rick at 9:30pm, departed Silver Gate and headed the 3 miles east to Cooke City. I saw a red fox on the side of the road ~1 mile outside of Silver Gate. I often see fox in that area as they patrol the edges of town and the main road.

A quarter mile after the fox, I then saw a bison on the side of the road. It was cool to see a bison bull this far east, and out of the park. However, it is nerve wracking to see them at dark since it is so hard to make out a dark brown animal, even one the size of a car!

After checking my email at the Cooke City Visitor Center, I headed back to the ball field area, my new home away from home. There was only 1 car there and I quickly fell asleep after my 10pm arrival.

> Rick McIntyre seated while Ranger John Kerr introduced him.



The Ranger Rider Lodge (below) with an amazing view of Amphitheatre Mountain to the south (above).







Day 19: Leaving Yellowstone - All Great things must come to an End

It was a chilly, mid-30 degree, but comfortable night in Cooke City. My alarm rang at 4:30am on July 6th. I was still tired and it was tough to rally myself out of the fetal position. But knowing I had one last day to see wild wolves, I rose. After rearranging my truck, which became routine even while half asleep, I left Cooke and arrived at Hubbard Hill in the eastern part of Lamar Valley at 5:18am. As I drove, I already dreaded that this was my last day in Yellowstone for the foreseeable future.

There was nothing at the expended carcass, which didn't surprise the wildlife watchers. In the low light I did find a bear out in the flats to the southeast, past the river. At first I thought it was a black bear as it was dark brown or black and didn't have much of a shoulder hump. But once it became lighter it looked like it might be a young grizzly. Adolescent grizzlies, 2-4 years old, often do not yet have the pronounced grizzly features including a dished face, massive shoulder hump (used for digging), and large claws that the adults have. It can be confusing especially from a mile away, even with trained eyes.

The bear ambled further to the southeast, never giving us definitive proof of which species it was. Rick McIntyre, fresh off presenting 8 hours earlier, had already moved west to Coyote Pullout. He had 2 wolves by a group of trees in front of Jasper Bench. When I arrived at 6am they were out of sight. There were less dedicated wolf watchers out that morning, likely because Rick's talk went relatively late into the evening the previous night.

We didn't spend long at Coyote Overlook, deciding to drive the 3-4 miles to Slough. We arrived there at 6:30am, walked out to Bob's Knob, and searched the flats and den area, but didn't see anything. At that point, we headed back to Dorothy's and scanned western Lamar again. There were hundreds of bison in the valley, including near the road. Calves were everywhere.

In addition, there were dozens of pronghorn in the valley, 20+ up on Jasper Bench, and 8 on the slope above (south of) Jasper. I made a comment to Rick and Laurie Lyman about how many black bears and pronghorn I had seen on this trip. A couple of veteran wolf watchers were near us and nodded their heads in agreement. The thought was that coyotes formerly kept pronghorn numbers low because of their predation on fawns. With wolves back, coyote numbers have been somewhat reduced, although there are still many around. This possibly released predation pressure on prey species like pronghorn.

Bison at dawn in Lamar Valley. Notice the large number of calves.

The move back to Dorothy's paid off because at 7:40am we saw a uncollared black yearling at the west-central part of Jasper Bench. It appeared to be the male but we weren't quite sure. It had a huge chunk of meat in its mouth and we watched, over the next 35-40 minutes, as it climbed the mountain behind Jasper taking 1048M's approximate route to the top of Specimen. A second uncollared black followed it and the two wolves met up on a snowfield at the very top of the ridge. It was amazing, even after watching 1048 do it twice earlier in the week, to see them climb and climb up the mountain.

When they reached the top it appeared that they were hot and needed a break to cool off as they were panting heavily. When they reached the snow they plopped down right on it and seemed to exhale in relaxation. The break was short, however. Five minutes later, at 8:15am, they both got up and went south out of sight over the ridge, no doubt heading to feed 1109F and her pups.

At 8:39am, I departed Dorothy's Overlook saying good bye to a lot of friends. I already missed the place and had that empty feeling in my stomach *while I was still in Lamar Valley!* However, I needed to move on from Yellowstone after having spent a solid week there.

Eighteen minutes later I reached Round Prairie and made breakfast at the place where I had dinner a few times that week. The place had a fantastic view, soothing ambience, and I could boil river water in my stove while I relaxed.



Breakfast at Round Prairie on the bank of the Soda Butte River.

I remember thinking how nice the sun felt on my body, warming it up, when 2 mule deer appeared right across the river. They foraged and continued on their way to the west. It was a perfect ending to a spectacular trip. I arrived back at Cooke City and got up to date with email and other necessary communications, then drove east at 10:10am. My plan was to drive clear across Wyoming, from the extreme northwestern part in Yellowstone to the very southeastern section past Cheyenne, in order to try and get to Rocky Mountain National Park in Colorado by nightfall. It was an ambitious effort but one that would give me more time at the last park I was going to visit.

I had only been to Rocky Mountain National Park once and that was early in my family's 1992 cross-country trip. We spent a few days there before going to the southwestern parks including Zion and Mesa Verde. I was infatuated with mountain lions back in high school and asked a park ranger where we could hike to *maybe* see one. I dragged my Father out of bed one early summer morning at first light and we hiked about 5 miles. We didn't see a lion of course, since they are just about the most elusive large mammal in North America, but I loved hiking in cougar country. The problem was I couldn't remember what trail it was and I thought long and hard on the drive across Wyoming about the places I would visit when there. I needed a park map as it had been over 25 years and I forgot most of the landmarks, other than remembering that I loved the park itself.

Leaving Cooke City, I took Route 212E to 296S toward Cody. Route 296 was a beautiful, but super windy, road. I told myself that I was not going to stop and take any pictures to save time and try and get to the park before dark. Later, I was annoyed with myself as I skipped over a beautiful scenic overlook in the Shoshone National Forest.



As I drove southeast, I got into more open, desert country. I suspected that I would start seeing pronghorn in this type of ecosystem and, sure enough, I did both on 296 and then Route 120S which brought me into Cody, Wyoming. From Cody, I took Route 120S to 20E which brought me through the Wind River Indian Reservation and into central Wyoming. I wish I had the time to explore the reservation more than I did but it looked like a beautiful and big area. It is the size of Yellowstone National Park at 2.2 million acres, so exploring it would've surely taken a lot of time. No doubt there are many hidden gems within the reservation. I had lunch at a pullout to enjoy the scenery. And driving through a tunnel under a mountain was one of the highlights (see picture below).

As I drove east I was seeing more and more pronghorn in the open country. It was cool to drive by and see so many. They have really made a comeback in many places out west, as many wildlife species have. By the time I reached Casper, WY, I had seen well over 100 of them, ranging from singles to groups of 4-6 (an average sighting) to one band consisting of 15-20. It was really interesting and kept my mind occupied looking for new groups as I cruised by going 75 MPH.

From Casper, I took Route 25S into Colorado and, oddly, I only saw 1 pronghorn along that long stretch of road. There was a lot of nothing in that sparsely populated country, but there were some beautiful red rock areas along the way, similar to the national parks in Utah.



One of many pronghorn on the drive across Wyoming.

Pictures taken from my moving vehicle. I drove as much as I could without stopping so I did not take many images along the way.

Red rock exposed areas in Wyoming.





Wyoming is a big state so it seemingly took forever to reach Cheyenne in the southeastern part of the state. But after reaching the state's capital, it was a quick drive into Colorado. I continued on Route 25S in Colorado and took exit 257 to Route 34W. Route 34W, called Big Thompson Canyon Road, brought me to Rocky Mountain National Park. The park appeared close on the map once I turned off 25S but the western states are so large, looks can be deceiving. It turned out to be well over 30 miles and at least 20 of that was driving through a huge canyon, mostly within Roosevelt National Forest. There were many homes and cabins at the base of the valley next to the highway and Big Thompson River with steep cliffs rising up soon after the houses.

I stopped at a pullout off 34W and had dinner in a cool, light rain. I knew at some point on this day rain would find me and it was refreshing after the hot, long drive through Wyoming. I was able to use the water from the river to cook and clean which conserved my supply until I became situated in the park.

I didn't enter the park until a little past dusk just after 9pm. Under low light conditions, I went through Beaver Meadows and only had a few minutes to poke around at last light. Even though I arrived at the park late, it still gave me some time to explore the area which made it feel that I was there longer than I actually was – hence the '2 nights but 3 days' motto.

I drove to the Moraine Park area and saw that the campgrounds were full, so I explored a quiet area in the dark and found a spot near some cars parked at a dead end for a backpacking hiking excursion at the Fern Lake Trailhead area. I didn't like the spot but after driving 644 miles that day, I was done. I needed rest. A couple of vehicles came through at 11ish which woke me up, and caused my heart to race. I couldn't figure out what they were doing but fortunately they didn't bother me so I was able to stay there until dawn when I vacated the premises.



Day 20: Exploring Rocky Mountain National Park

I woke up at 5am on July 7th and took a short, quarter mile hike on the nearby Fern Lake Trail to stretch my legs. It was hard to see at very first light, especially in an unfamiliar area that I arrived at in the dark, but it felt nice to be in the park and have a full day to do whatever I wanted. The first night arriving in a park, especially a new one, is always the most stressful for me because of a lack of experience in an area, and it is not possible to reserve a camping spot when you are driving cross country and don't know when you will be at a certain place. Plus, many of the campgrounds in a park are first come first serve and quickly fill up, especially in the more prime locations like Slough Creek in Yellowstone and Moraine Park in Rocky Mountain NP.

Within 10 minutes I was back at my car after briefly hiking in a magical forest along the trail. I envisioned a mountain lion watching me as I walked by a wooded ridge. As I was leaving the Fern Lake area and passed through Moraine Park, I saw a large exclosure that the park put up in a riparian area. It was there to keep elk and other browsing ungulates out to allow aspen and willow forests to regenerate. I had read about it but it was something else to see it in person. These fences are fairly large, averaging 20 acres per exclosure.

The park decided not to reintroduce wolves since the 265,000 acre mountainous park was predicted to be too small an area for the canines to roam as they would likely leave the park, especially during winter when many elk migrate to lower elevations out of the park. Part of the strategy was to keep elk out of certain biodiverse parts of the park. It was an eyesore but I guess a necessary action, at least for the time being.



After leaving Moraine Park, I explored the west end of Bear Lake Road, seeing 2 mule deer on the drive there. During the daytime this popular hiking area fills up quickly and cars are turned away. It helps to be an early riser as the lot was already half full by 6:10am! But unfortunately I wasn't prepared to take a hike there just yet and wanted to explore the park in the early morning via vehicle.

From Bear Lake, I drove back past Moraine Park. There was finally enough light for pictures of the pretty valley. After obtaining images, I then headed to the park entrance to get pictures of the welcome sign which I missed in the twilight of the previous evening.

As I re-entered the park, I felt fortunate to have my \$80 Annual National Parks pass as it was \$35 for entry, which was good for a week. While that is still a deal compared to most places, it doesn't even equate to the bargain that I was getting for just over twice as much.





Eastern part of Trail Ridge Road looking to the southwest.

It was still early so I explored the northeastern part of the park and found a meadow area west of the Fall River Visitor Center with two nearby features called Sheep Lakes and Horseshoe Park. This region was a popular meadow to see wildlife, including bighorn sheep which supposedly come down from a steep ridge to feed down on the flats. There was nothing there when I drove by, so I turned around and went to the nearby Alluvial Fan and Endovalley areas off Old Fall River Road, which turned out to be beautiful areas to explore..





I stayed local for the first few hours so I could visit the Beaver Meadows Visitor Center when it opened. I have always enjoyed looking at park displays, maps, and films, especially when I visit a new park. Beaver Meadows was one of 5 visitor centers in Rocky Mountain and each one had a different theme. Beaver Meadows is the site of park headquarters and had a large restroom facility for people coming in from outside the park. It also had a large amphitheater to view the park's 20 minute film.

Following my visit, including the mandatory purchase of park magnets, I then drove west on Trail Ridge Road, stopping at most overlooks. The views on this road were spectacular. It is the highest elevation national park in the lower 48 states and its mountains and high elevation lakes are its main features, along with abundant wildlife.

My favorite view was Forest Canyon which had 360 degree panoramas of mountain peaks and tundra, which are high elevation areas where trees don't grow or are stunted. The weather is too severe to support large plants so grasses and smaller shrubs take their place. They are ecologically sensitive to human activity because the short, delicate vegetation is easy to step on. As I reached the top of Trail Ridge Road, at over 12,000 feet in elevation, six bull elk were bedded on the tundra just off the road. Naturally, they created heavy traffic conditions in this incredible landscape, with lots of cameras pointed at them. I also saw four different yellow-bellied marmots sunning themselves on rocky outcrops.



Longs Peak, at 14,259 feet, is the highest point in Rocky Mountain National Park. Colorado has the most 'fourteeners', mountains over 14,000 feet, in the United States including Alaska.

Switchbacks on the Trail Ridge Road show how steep it climbs as it gets to over 12,000 feet.



Many Parks Curve Overlook along Trail Ridge Road.

Rainbow Curve Overlook along Trail Ridge Road.

People

Forest Canyon Overlook along Trail Ridge Road.





Forest Canyon area including bull elk across the street from the parking lot.

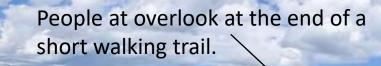
Forest Canyon, a most spectacular place to see tundra and mountains.



Yellow-bellied marmot observing people from the trail at Forest Canyon Overlook. Across the street from that overlook were the bull elk that attracted a crowd of people who respectfully observed them from the edge of the road, with a park ranger's assistance.







A cow elk in her mountainous domain.

At 11:25 am, I hiked the 1 mile Tundra Communities loop. I saw more marmots and a cow elk grazing in the wide open. It was a great short trail that explained to visitors the importance and fragility of the tundra and the need to stay on trails as to not trample the vegetation. While most did obey these signs, there were also quite a few people who chose to wonder off trail, likely damaging the short plants in the process. One reason why these plants are so prone to harm is that they only have 2-3 months to grow before the early fall cold forces them to shut down for the year.

I arrived at the high elevation Alpine Visitor Center a few minutes after noon and was making good time considering that I spent quite a while stopping at all of the overlooks leading up to that point. Parking was difficult and I had to wait for a good 15 minutes for cars to clear out but it was a special experience to be in a building at nearly 12,000 feet above sea level. The views were amazing from literally all directions.

I didn't spend too long in there and decided to cross the park road on foot and hike the Ute Trail for a 3.5 mile roundtrip hike. It involved crossing over two snowfields and sinking up to my knees in places. While walking, I could see 5 female elk up slope just below the road where I had come from. They must have been out of sight, behind a ridge, on my drive by there earlier.

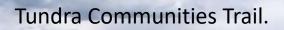




Driving Trail Ridge Road on the tundra (top left and bottom right). Then, waiting to park at the Alpine Visitor Center (bottom left).

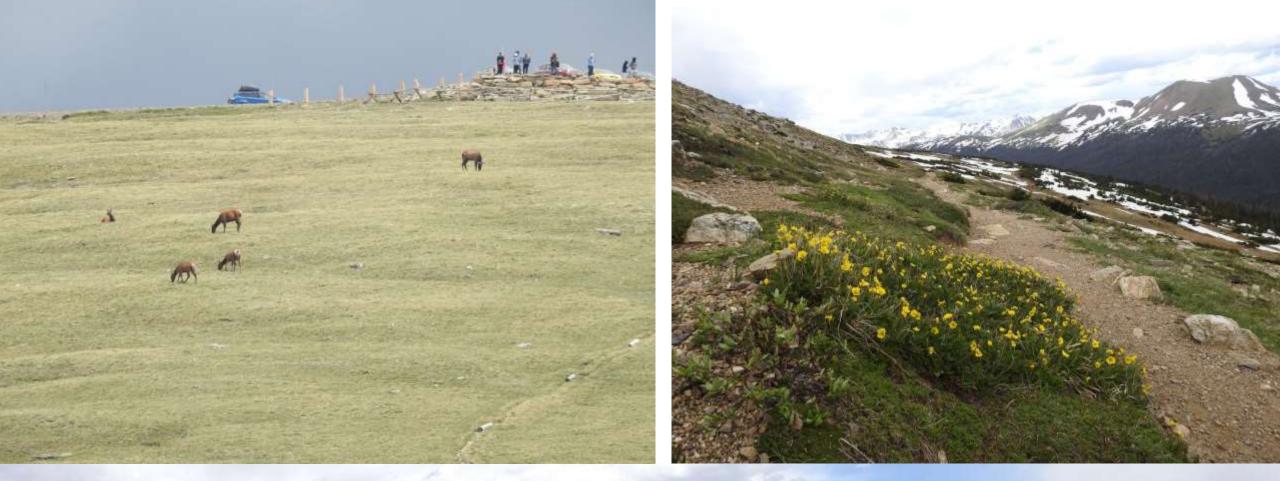








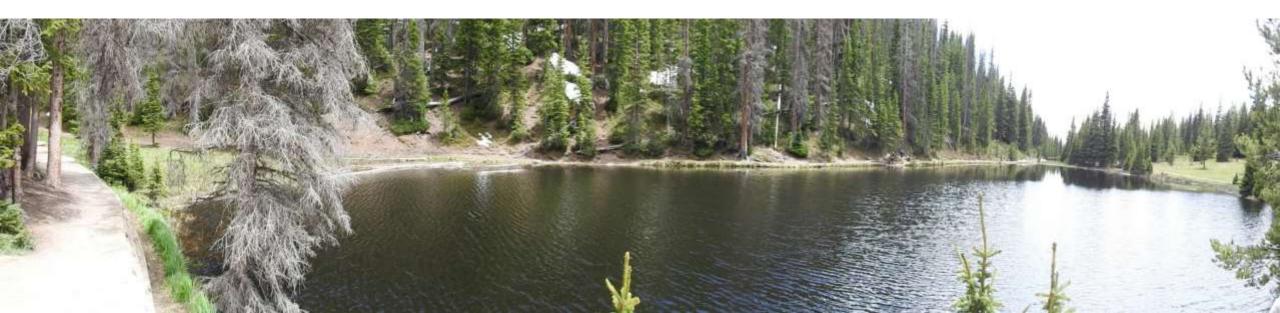
Views from the Ute Trail including crossing over a snowfield in early July!



Ute Trail and the aptly named Never Summer Mountains. Grazing elk and wildflowers (above).



Above: Alpine Lake off the Ute Trail. Below: Following that hike, I started to descend the Trail Ridge Road and head to the western region of the park. I ate lunch at Lake Irene Picnic Area, then poked around for ~1 mile at the namesake water body and associated trails, including meeting back up with the Ute Trail a few miles from where I was earlier.



Below left: The amount of melting snow around Lake Irene and associated streams leading into the lake was impressive. Below right: The Cache la Powder River off Trail Ridge Road and near Lake Irene.



As I reached the western side of the park, the road headed south and dropped in elevation down to the river systems in the area. These water bodies form the beginning of the mighty Colorado River. Within that area was the 6 mile long north to south Kawuneeche Valley, a mixed forested and wet, open meadow environment. Even though it was daytime, the wildlife sightings started to add up in this area:

- 2:45pm 10-12 elk grazing in meadow a quarter mile south of Holzwarth Historic Site. Unfortunately, viewing was difficult on the road without a place to pull over so I cruised past those elk hoping to see them later when I returned.
- 3:05pm Moose calf on an island right at a bend in the Colorado River immediately west of the road. It was hard to see in the trees. The cow was behind the calf out of my sight but people had seen her minutes before. This was the first moose that I had observed all trip. I usually see them in the Round Prairie area of Yellowstone but they spend more time there in the fall and winter than during summer.
- 3:16pm 2 cow elk bedded. They soon got up and grazed just east of the road in Harbison Meadows.
- 3:17pm 3 more elk on the west side of the road just north of Grand Lake Entrance Station. They were bedded in the wide open. When I zoomed my camera in I also spotted 4 calves with them.
 - At 3:25pm, all 7 elk got up. Two adults were cows and one a young bull, likely an offspring of one of the cows. They
 proceeded to jog north in meadow eventually going out of sight behind trees, but then came back into view at 3:28 as
 they ran west in the open to the far tree-line across the valley. Normally elk only have one calf per year so I assumed
 that there were other cows in the area considering that we saw just 2 cows with the 4 calves!
- 3:29pm Another cow elk in a large meadow 0.25 miles south of the group right near the visitor enter. I kept on driving past this individual to save time.

I was impressed with the amount of ungulates that I had observed both up in the alpine areas and, especially, in the Kawuneeche Valley on the park's west side. As I lost sight of the last elk, it started to rain again. Looking back in my notes, I had so much rain during the trip – 19 of 20 days – that I just noted in the late afternoon that "it had rained on and off all day". You become immune to some things in nature whereas they might occupy your mind more often when in civilization. Rain is definitely one of those things.

Moose calf in a tough to see area at a bend in the Colorado River. Bedded elk (right). When zoomed in on, they turned into 7 total elk with 5 shown below.

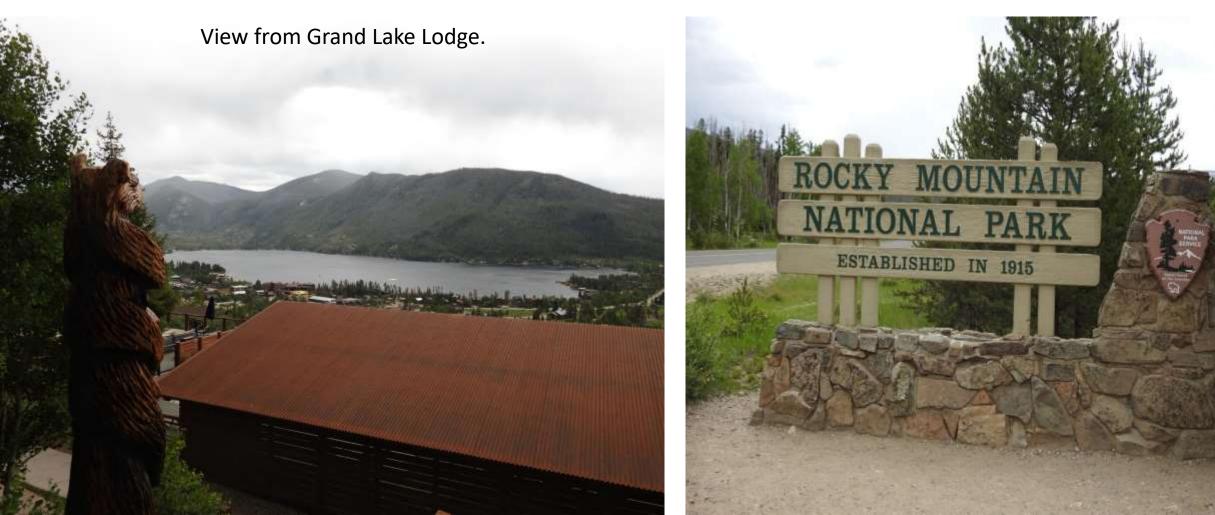






I visited the Kawuneeche Visitor Center, Grand Lake Lodge, and then the town of Grand Lake. I had made it down to 8,000 feet in elevation around the large water body. While it was cool and misty out, I found a spot where I was able to take a dip in the lake and clean off a bit. Putting fresh clothes on instantly made me feel cleaner.

I re-entered the park from the southwestern Grand Lake Entrance Station around 4:30pm. I knew I had to hustle as I needed to drive clear across the park and get out of the alpine area and back to the northeastern region of the park before dark.



I was cruising north back through the Kawuneeche Valley at 4:36pm when I saw a bunch of cars pulled over just north of the Green Mountain Trailhead. There, west of the road in a meadow was a cow moose and her calf. The cow was a ghostly silvery-black, quite unique from the many moose I have seen over the years. The calf was a normal brown in color.

Moose are often a big draw to tourists in national parks, just behind wolves and bears in popularity. I find that unique because I have seen hundreds of them in the Northeast, and showcase many of those images in my book <u>Northeastern U.S.</u> National Parks: What is and What Could Be.

At the northern part of the Kawuneeche Valley I saw ~50 elk near where I saw the dozen on my way down through that area a couple of hours before. There were no pullouts in the area and it was a frustratingly tough spot to pull over. Plus tree cover prevented a direct sight of the large group of ungulates. Despite the large group I continued driving to save time. I reasoned that I just got fantastic photos of smaller groups of elk. It wasn't imperative for me to photograph every single ungulate group on this trip.

As I started to climb in elevation I saw a mule deer doe on a ridge on the west side of the road just north of Milner Pass and Poudre Lake. She was a nice looking deer and I enjoyed her as I cruised by at ~35 MPH. I was loving the park and also making good time which would enable me to get back over the tundra area before it became too late.



Kawuneeche Valley from Farview Curve Overlook.

Conta figue



Continental Divide

Milner Pass

elev. 10,759 ft.

The 'Great Divide' suparates drainage to the Atlantic from drainage to the Pasific. It traverses America from Alaska almost to Cape Horn.

Atlantic Ocean drainage

Cache La Poulre Creek drains into the Platte River which flows to the Missouri, then to the Mississippi, thus reaching the Gulf of Mexico. (part of the Atlantic Ocean)

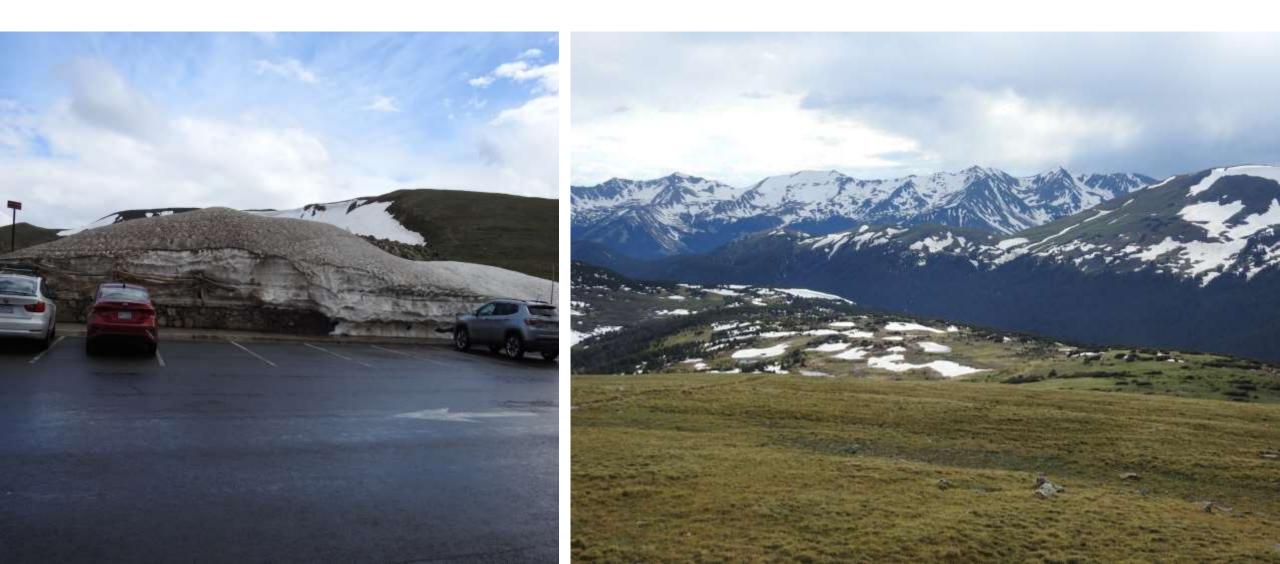
Pacific Ocean drainage



Beaver Creek drains into the Colorado River, which then flows through Grand Canyon National Park and on to the Gulf of California. (A part of the Pacific Ocean)

Never Summer Mountains from Gore Range Overlook.

I enjoyed the trip back over the Tundra. I took so many pictures earlier in the day, as evidenced by all the images in this chapter, that I vowed to just enjoy the return drive and only stop for a few photos. A quick trip back to the Alpine Visitor Center to use the restroom and take a picture of the snow bank next to the parking lot (below left) was one of those breaks, as was a view to the west from the Gore Range Overlook (below right).



The drive on the tundra was a really interesting experience. With the colder temperatures, even in the sun, lack of oxygen, and no trees, one gets the feeling that they are in a special place. I marvel over the engineers who made this '<u>scenic wonder</u> road of the world' in the early 1930s. It truly is an amazing area.

And to top off the uniqueness of the area, as I rounded a bend in the tundra about a half mile west of Forest Canyon Overlook, I saw 14 cow and calf elk grazing northeast of the road and 8 big bull elk bedded just to the southwest. They were all close to the park road and right out in the open. Once I found a safe place to park at an unnamed pullout, I captured some fantastic pictures.









The bull elk had quite a few human admirers.

the at





After the fantastic elk sightings, I drove 8+ miles downhill, mostly in 2nd gear to use the engine to slow the car down. I barely touched the gas the entire time. I've always been interested in hypermiling which involves using a variety of driving techniques to improve a car's fuel efficiency. <u>Websites say</u> that it's possible to improve fuel economy by 37 percent just by changing the way you drive using techniques to reduce the demands placed on the engine. My Tacoma is rated at 18-22 miles per gallon yet I have always averaged 22-27 MPG, with 26-27 during the summer. Minimizing the use of your gas pedal is one of the most obvious ways to hypermile. On this trip, I had 3 gas fill-ups where I averaged 30-31.8 MPG for the entire tank. All of those were in the mountains when I was in neutral or not using my gas pedal for extended periods of time.

I arrived at the Sheep Lake Overlook at 6:38pm and made dinner. It was such a peaceful and relaxing place to eat. People came and went in and out of the lot obviously looking for wildlife. If something wasn't in view, most left just minutes later. While cooking, I was continually scoping up hill looking for signs of bighorns. I never did see any that night but I did find a wild turkey moving east to west about half way up the slope. It was a brief sighting that didn't give me enough time to get any pictures. Despite seeing and hearing them nearly every day on Cape Cod, Massachusetts, it was my first sighting of these charismatic birds all trip.

I left the viewing area at 7:36pm and drove east. I saw 4 mule deer grazing at the eastern part of Horseshoe Meadow a half mile from where I had just scanned the hills and seen nothing. I saw two more right at Aspenglen Campground. Because Aspenglen and Moraine Park were filled, I went out of the park and walked around Estes Park for an hour. I used the Wi-Fi and shaved at the Estes Park Chamber of Commerce. I was amazed at how developed this area is. The land basically went from built up houses to national park lands. There was little in between. Most areas posted, 'No overnight parking', so I drove around nervous not knowing where I was going to spend the night.

Aside from not wanting to spend the money on overpriced hotels, I didn't have the desire to use them because I woke up so early and wanted to be ready to go. My reasoning was that if I stayed at a hotel, then I would want to get my money's worth and sleep in (which for me would be past 6am) and do other 'hotely' activities like eat breakfast there. In short, I would lose valuable time in the field. That didn't interest me.

It was after 10pm when I found a motel parking lot off Route 34 not far from the Fall River Visitor Center. I decided to park in the small lot. I was exhausted and felt like I had done three days in the past 24 hours. I would see if I could rest here undisturbed.

Day 21: My last day in a Western National Park

I didn't sleep well all night as cars came in and out of the small hotel until around midnight, and there was a streetlight that lit up the lot. After an hour or two I realized that nobody was going to bother me and finally fell sound asleep.

My alarm went off at 4:30am on July 8th. I had kept it on from when I was in Yellowstone so I could get into the Lamar before first light. I was exhausted from my cumulative activities since Yellowstone. The drive alone to Rocky Mountains still mentally drained me when I thought about how long that took.

I hit the snooze button once and then sprung up at 4:40am, forcing myself to move. I was headed to the Beaver Lakes Visitor Center which involved me circling through Estes Park via Routes 34 and 36. It was amazing how much better my navigational skills were after driving all around town the previous night.

It was still dark when I arrived at the visitor center at 4:57am. I used the restroom, brushed my teeth (including plugging my electric toothbrush into the wall charger), and checked my email before leaving there at 5:23 at first light.

I had been thinking about the hike I did with my father way back in high school and thought that it was in the Moraine Park area close to the campground. My mother couldn't remember when I texted her even though she is usually good with recollecting events. I remembered it was about 5 miles. The Beaver Mountain Loop Trail was that length and was a short drive from the campground, so I had in my mind that was the place I was going to hike.

Sprague Lake at dawn

Within a half mile of leaving the visitor center lot, I saw 2 mule deer bucks near the road. While it was too dark for pictures, it was a good start to the day. I wanted to take one more drive through Moraine Park and along Bear Lake Road before the traffic became congested from day hikers visiting the area. On the way, 2 female wild turkeys and only 1 poult were traveling on the side of the road. I wondered where the other babies were and why two females needed to take care of a single offspring. I drove Bear Lake Road and ended up at Sprague Lake. It was a beautiful dawn to hike the 0.75 mile nature trail loop. There were 6 other people already there so clearly it was a popular area. There were reports of moose in the lake a day or two before but there were none that morning. I did see 2 mule deer, a doe and a yearling, just before I circled back to the parking lot. It was a great little hike to start the cool, crisp morning.



On the drive out of Bear Lake Road I saw a mule deer doe and young fawn in a parking lot on the east side of the road just north of the Glacier Basin Campground. I was hoping to take pictures of the little baby but they went out of sight before I could obtain an image of them.

After this sighting, my plan was to take the short drive to the main park road and then to the Upper Beaver Meadows parking lot. However, on the way out I got stuck in frustrating one-way traffic at Moraine Park. There were a many cars driving southwest toward Bear Lake and it took me waiting through two different delays to pass through and continue on my way to the northeast.

It had been a productive morning, nevertheless, as I arrived at the trailhead at 6:43am after taking a 2.5 mile long side dirt road to get there. As I began the hike, I swore it was the hike I did back in high school when I was dying to see a wild mountain lion. The air was fresh and crisp and there was a magical excitement that was palpable.

The area was very savannah-like as I walked under large pine and other trees with much grass underneath. I saw many deer tracks but didn't actually see a live one while hiking. I also heard a probable howl about 10 minutes into the hike but I didn't hear anything when I stopped to listen. The only decent sized mammal I saw were a pair of marmots sunning themselves on the first rays of early morning light.

There were a few great views of Moraine Park on short side trails off the main loop which provided scenic vistas of the area. I also came across a beautiful aspen forest shortly before returning to my car at 8:16am. The elk clearly hadn't eaten that forest to death.

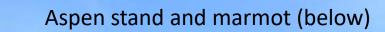
I really enjoyed the 5 mile loop, taking an hour and a half to do the hike. I noted in my journal that, "It was a great last hike of the trip." As I left the parking lot, a mule deer buck crossed the open meadow near the trail where I started the hike. "Unbelievable", I wrote since I didn't see any during the hike despite walking as quietly as I could.



Beaver Mountain Loop (all pictures) with view of Moraine Park and mountains (top left).







Moraine Park





Open ridge (foreground) and mountains toward Bear Lake area (background) viewed from Beaver Mountain Loop.

After seeing that mule deer, I drove out of the Upper Beaver Meadows lot on an unimproved road. On the main park road, I took a left to go west to Deer Ridge Junction, then took a right on Route 34 to head to Horseshoe Park. After a couple of miles, I arrived at Sheep Lakes to look for wildlife and to have breakfast.

As I was boiling water for my usual oatmeal and hot chocolate, 2 ram bighorn sheep came down toward the road east of the parking lot. They didn't cross the road north to south onto the flats as I expected they were going to do, but instead climbed back up the ridge then traveled west on the semi-open slope. It seemed odd that they would come downhill just to go back up. They didn't appear nervous but might have been put off by the people in the parking lot. While they weren't as close as they would've been on the flats, I still had a great view of them on the steep slope. As I was watching the two bighorns, I noticed a mule deer *above* them. It looked odd to have a deer higher in elevation than the mountain cliff specialists.







Bighorns on the mid-slope. I never did get a picture of the mule deer above them before it went out of sight behind the trees.

Satisfied with the bighorn sighting, I headed further east. It was a beautiful early summer morning in the Rockies. The dry air characteristic of the area met the cool dawn, and the rising sun rapidly warmed my bones. I had been so busy the past few days I didn't have much chance to think about my departure from Rocky Mountain NP. I wanted to spend more time in the park but I just had a couple of great days there and drove all the park roads, absorbing the beautiful mountain scenery. While I had a yearning to hike some more, it was time to begin the process of heading home. I had a family event in a few days and predicted I would get home for it if I left on this day.

I arrived at the Fall River Visitor Center at 9:06am. My plan was to spend some time there and then go to the Estes Park welcome center. After that I would start the journey back and see how far east I could drive by nightfall.

My last Rocky Mountain activity was a good one. It was my favorite of the four visitor centers that I visited. There were many wildlife exhibits, including some really cool taxidermy mounts and scenery pictures with wildlife mixed in. I spent nearly an hour there before leaving the park and going to Estes Park's visitor center. This was more like a welcome center to the town, rather than a national park's nature-based focus. In Estes Park, I was able to take a deep breath and get up to date with email, texts and any missed messages I had before I started my drive east at 11am.

It was hard to describe the mixed feelings I had as I left Rocky Mountain NP. I utterly exhausted myself over the past 3 weeks and saw more of nature than most people see in their lifetime. I walked among the badlands, cavorted through prairie grasses and prairie dog towns, trekked up mountain peaks, drove in some of the most desolate places in the United States, was treed by a wild bison, and saw some of the world's top predators up close. I knew that being back home in a much tamer area would be a major buzz kill, and I wouldn't fully feel alive again until I returned back out west.

Even the wild areas of the Northeast, like Baxter State Park and Katahdin Woods and Waters National Monument in Maine, don't have a true top predator inhabiting the region as cougars were driven out over a century ago and wolves live tantalizing close in Quebec (about 75 miles away) but don't exist in populations in the region. That being said, one of my top all-time wildlife sightings was when a lynx crossed in front of our car in Katahdin Woods & Waters on a park tote road in mid-October 2019. (And as I wrote this during the week of May 10, 2020, I documented a fisher and eastern coyote/coywolf on my backyard trail-camera and saw wild turkeys, white-tailed deer, otter, and a red fox near my house [see next page]. So the region certainly isn't void of wildlife, but it is nothing compared to the bears, bison, wolves, cougars, and elk, among others, that inhabit our western national parks.)



Eastern coyote (3), fisher (2), whitetailed deer (1), and wild turkey (1) images on Cape Cod, MA.









I drove Route 34E out of Estes Park and was able to enjoy and appreciate the impressive canyons bordering the Big Thompson River during daylight conditions (right and below). Route 34 met up with Interstate 76 near Fort Morgan, Colorado. In the median of the ramp entering the highway I saw a prairie dog town, which was a pleasantly odd place to see the industrious little rodents.



I filled up with gas in Sterling, CO, and then drove 76E to northeast CO and merged with Interstate 80E at the Nebraska border. I would be on this highway for most of my route home.

I plowed forward to the point of having leg cramps but got all the way to Cozad, NB before stopping at a rest area at 6pm. I had already left Mountain Time and was now in the Central Time Zone. In addition to using the facilities and checking my messages at the rest area, I also had move the bags that were in the bed of my truck to inside the cab as it started to rain out, again. This now marked rain on every day of my trip *except* the day I left American Prairie Reserve to avoid a major storm! The coolness of the rain caused me to recline my seat and doze off. It felt great. I was so tired yet had so much adrenaline from the trip that it was often hard for me to relax.

I left the rest area at about 6:40pm just as it started to downpour while I was on the highway. It got difficult to see at times. It was nerve-wracking to drive in those conditions, especially as I went by trucks that pulled over off the highway to wait out the rain. But I was determined to cover as much ground as I could.

While driving through Nebraska I went past a cattle allotment right next to the highway. It was one of the worst things I had ever seen. It stunk to high heaven and cattle were jam packed in a tight area. There were thousands of them with no room to move. I wanted to vomit at both the stench and the poor creatures' living conditions. It made me proud that I had gone over 12 years not eating beef. No animal deserves to live like that. Ironically, that was the last picture I took on the trip.

Just before dark, and still while it was raining out, I stopped at a rest area in south-central NB and fried some eggs. I wanted to finish my food before returning home but later thought it was ridiculous that I didn't just go into the Subway I walked right past when I used the restroom.



After finishing dinner, and filling up my gas tank one more time that day, I drove further east from dusk until well after sundown. I saw 3 white-tailed deer in a field near the last rest area where I stopped, then two more a few minutes later. They were in agricultural areas, where white-tails often thrive with plenty of food and less predators. Mule deer live more in the mountainous western United States and are not found in the east.

I was pretty tired around 10pm but kept on pushing across Nebraska. I made it all the way into Iowa, passing the cities of Lincoln and Omaha, NB, well past dark. By driving through those metropolitan areas at night, I would avoid having to deal with them during potential rush hour traffic conditions in the morning. At 11pm, I stopped at the first rest area I could find after traveling through Council Bluffs, Iowa. Because of the time change it was really midnight Mountain Time according to my biological schedule. Interestingly, my phone never changed from Mountain to Central Time until I turned it off and then back on. Usually it automatically resets itself.

I had driven another 644 miles, spending half the day exploring Rocky Mountain National Park and the other half driving about a quarter of the way home. I was so exhausted, that was one of the only places I do not remember where I slept during the 3.5 week odyssey. I only remember that I was at a rest area off Interstate 80E in southwestern Iowa but, to this day, can't visualize anything about the place other than what I wrote in my field notes. Yet, I remember almost the entire morning in Rocky Mountain NP!

Day 22: A Record Drive

On July 9th, I woke up at 6am to more rain. I wrote in my journal, "I think there has only been like 2 days all trip without rain." After checking my records, it turns out I was wrong as it actually was only one. I did also note that, "Luckily, most of the rain has been showers that soon went away." Indeed, on many of the days in which it rained it was actually nice out for much of it.

I got a pretty good night sleep at the rest area because I didn't remember much until the morning. Knowing that I was going to have an all out maximum effort point A to B drive, I took another half hour rest before washing my face and brushing my teeth. I left the western Iowa rest area at 6:55am and plowed forward, re-charged and ready to cover some ground.

I took Interstate 80E through Iowa and filed up with gas in Davenport knowing that it would get more expensive once I entered Illinois. It was just under 300 miles for me to get through Iowa which didn't happen until around noon. I took a nap at a rest area once I entered western Illinois, then woke up and drove straight to western Indiana before my next break. It was 4:30pm and I was about to reach Eastern Standard Time. I was happy with my progress. I was able to make it through the southern part of Chicago without much traffic, and continued eastward in Indiana without stopping at Indiana Dunes National Park like I did on my way out west three weeks earlier.

I continued to note my wildlife sightings as I went, and saw a deer in eastern Indiana as the hot day cooled into early evening. I reached Ohio at dusk, about 8pm, and believed that deer would be getting active as I drove by. I was correct, seeing, in order, deer in groups of 3, 1, 2,2, and 7 – 15 total – before I arrived at a fueling station at Mile 75, southeast of Toledo. Continuing east into north-central Ohio, I saw 4 more deer, 2 singles and one pair, before it became dark at 9:30pm.

There was an unbelievable number of radio stations in the Cleveland area with just about every genre of music, and sports talk radio, imaginable. I couldn't believe it. I was able to partly get updated on the happenings of the world, including sports news, from the past few weeks.

Once I came to eastern Ohio I knew I needed to find a place to spend the night as I was tired. After driving through all of Iowa, Illinois, and Indiana, I completed the 237 mile stretch through Ohio well after 11pm.

I stopped in western Pennsylvania just past the eastern border of Ohio. However, the rest area was too loud with too many trucks entering and exiting, so I drove about 15 miles further east and found an abandoned lot across the street from a Burger King and a gas station. It was a much quieter spot close to the highway and was dark enough to get some rest. It was midnight at that point so I didn't have much of a choice but to rest there for the night.

Before retiring for the night, I filled up my gas tank so I wouldn't have to do it in the morning. I was annoyed because I could have paid 30 cents less if I had just filled up in Ohio before crossing into PA. I had made it so far from the start of the day, logging 889 miles from western Iowa to my final destination. It was easily the furthest I had driven in a day!

Because I took a nap during the day, I wasn't totally exhausted like I was the night before. I thought back to the past few weeks, as I began the process of falling asleep in a foreign area, and reflected on the importance of having the national parks that we do. There is no possible way that I would have seen all of the wildlife that I had without having the diversity of large areas protected from human interference, including hunting. The <u>National Park (NP) Service's mission</u> of preserving 'unimpaired the natural and cultural resources and values of the national park system for the enjoyment, education, and inspiration of this and future generations' is a model that the rest of the world has replicated. It has been extremely effective in protecting core wildlife populations and ecosystems as well as being an important boost to local economies as people recreate in these areas.

National park status for an area means something to many people. It is the best of the best. I was so inspired with this message and the wildlife within those parks that I vowed to first write a book pleading to create more national parks in the Northeast before I wrote this one.

Northeastern U.S. National Parks: What is and What Could Be is a 250 page, 500 picture e-book that makes the case to expand the NP System in the Northeast, beyond just having Acadia National Park as its only large "natural" park, by adding 3 units: Cape Cod NP, Kancamagus NP in NH, and Maine Woods NP and Preserve. These 3 units are already existing federal land and could immediately be added to the NP Service by an Act of Congress. Giving national park status to these areas would provide an important, higher level of protection to better safeguard these areas especially during politically volatile times. I strongly believe that NPs are "<u>America's Best Idea</u>", as Ken Burns eloquently noted, and creating these parks in the urbanized Northeast is important.

Day 23: Onwards to New Jersey

I dreamt that night of more national parks throughout the country, especially in the Northeast U.S. I realized just how ecologically, economically, and spiritually important they are to the country and experienced that first hand during this trip. People from all over the world cherish our national parks! Indeed, it motivated me to dedicate part of the next year after that trip writing about my national park experiences for books that I would soon publish in 2020. (In fact, by May 2020 the two books totaled 800 pages of information supporting our national parks.)

I woke up on July 10th at 6:30am with renewed energy and a sense of purpose, even after getting only about 6 hours of sleep. It was already about 80 degrees and sunny so I quickly transitioned to making my bedroom a mobile vehicle and not a sauna.

Only stopping twice on the way through the 300+ miles of I-80E in Pennsylvania, I made good time. One diversion was for breakfast at a scenic pullout in central PA and the other was for a bathroom stop in the eastern part of the state. I saw ~10 road-killed deer with some fresh and others old. I was surprised that I didn't see any live white-tails in a state where I know they are common.

I also spotted another 6 dead deer in New Jersey. It was daytime so I wasn't expecting to see any live deer as they are usually resting by then. It saddened me to know that my wildlife sightings were just about over for the trip.

My aunt and cousin still reside in northeastern New Jersey, outside of New York City. My plan was to visit them for the night before I continued home the following morning. I arrived at my Aunt Jill and Uncle David's house (they married after my family's 1992 cross country trip) at about 2pm after driving a pedestrian 371 miles from western PA into NJ. I nearly immediately fell asleep on their couch after saying hello to them. They knew I was tired and needed rest. The only other house I had been in during the past 3.5 weeks was at American Prairie Reserve so it was hard to describe the feeling of being able to truly relax and spread out my legs. I blacked out for about 1.5 hours .

Jill and David were moving to Florida the following week so I came there with a purpose. As if I didn't have enough stuff in my car from living in it for 23 days, I filled the rest of it with items that my Mother wanted back on Cape Cod. It is amazing that everything made it home in one piece based on how full the truck was.

After loading up at my aunt's house, I spent the night at my cousin Scott and his wife Nancy's place. Scott now lived about 15 minutes from his Mom, which was relatively close to where he grew up.

Scott and I have much in common including our love of sports, although he is a New Jersey fanatic and I am a Boston/New England guy. We also both fast for health reasons. We are only 9 months apart in age so have always been close.

I mentioned how I still remember the 1992 NBA Draft like it was yesterday. He agreed, and proved it by texting me a You-Tube link to Darren Morningstar's comments about aspiring to be a long-time Boston Celtic. Great minds think alike!

It was in their backyard when I truly realized how much I did on the trip. While eating a delicious pizza that I downed by myself, I explained to them all I saw, where I went, and how I slept. After listening to me, they both uniformly agreed, "It is a good thing that you did that trip alone. Nobody else would have been able to maintain that pace!"

Retiring at a normal time and in a bed, I slept well. I was now ready to get home and was looking forward to waking up so I could complete the 5 hour drive to my final destination of the trip.

Day 24: The Final Leg

Rising early for work, Scott was out the door by 6am on July 11th. Sleeping until then felt like the middle of the morning for me after my early dawn wake-ups all trip. As nice as summer is in northern latitudes, along with it comes very early 5am sunrises which means first light is around 4:30am.

Saying good-bye and thanking him for the hospitality, I followed Scott out. I drove clockwise on Route 287 around the western edge of crowded northeastern New Jersey, including taking the Tappan Zee Bridge to Interstate 95N. I left early enough where traffic was manageable through New Jersey, a small part of New York, and then all of Connecticut and Rhode Island.

At 10:15am, I arrived at the high school I taught at during the academic years around this trip. Obviously, we were on summer break in mid-July. It was 50 minutes from the school to my house but was close to I-195E on my way home. By going then, I was able to save a half day of driving by picking up my computer which needed to be refurbished. It was an odd feeling to be there before I even arrived home, but it made a lot of sense for efficiency purposes. I was happy to have that computer as I immediately downloaded all the pictures from my trip the next day.

I finally arrived home at 1pm after sitting in early afternoon summer traffic entering Cape Cod. It was a Friday which is usually the worst day of the week to drive over either of the two bridges connecting 'the Cape' to the mainland. I went straight to my parent's house where I was able to see my dog, my son, my nephew, and two nieces. Plus, I was able to unload all the stuff from my aunt's house, with my Dad's visual displeasure of adding more "unnecessary" items to the house.

I completed the final, final leg of the 307 mile trip by driving 5 miles from my parent's house to mine. Then, I spent the rest of the day unpacking, doing laundry, and organizing my car and house. My roommate, Tom, looked after the house and the chickens while my son, dog, and I were not there. While I updated him periodically during the trip, it took nearly an hour to fully explain how truly amazing it was. It was a voyage in every sense of the word.

It felt odd to actually be home after being on the road for so long. I would spend the next couple of weeks getting caught up on emails, photos (especially), videos taken, household chores, DVR'd programs, and sleep, among other tasks.

I gathered a lifetime of memories and knew that I had to share them with the world. I hope that this treatise was an enjoyable and unique read. I believe the combination of text along with hundreds of color pictures is something new to the book world. It is my desire that this 'straight to e-book' format might start a trend for works like this to become more common over time. I also desire to make similar books from future trips so please stay tuned.

Thanks for taking the time to read this!

Jorathan D. Way

Jonathan (Jon) Way

A Peak Life Experience

To keep friends and family updated with my progress during my trip, I posted a dozen times on Facebook while I was on the road. This saved a lot of time and effort instead of individually texting and emailing people pictures and information. If someone contacted me I would retort, "Check out my latest Facebook post!"

The day I arrived home, my mother took a picture of me upon my arrival to her house. Later that day, I posted it to Facebook with my last message of the trip:

A peak lifetime experience: Three and a half weeks traveling and sleeping in my car which started silver in color and is currently light brown (2). 7601 miles. 17 states, 10 national parks and monuments and the same number of national forests. Treed by a wild bison in the back country. Saw just about every wild animal out there including bears and wolves. Didn't buy one fast food item during all that driving and lost over ten pounds. Took over 3,000 pictures and have memories that will last a lifetime. I just got back today in one piece after driving 889 miles yesterday (technically it was the day before) to get halfway home in one day. Time for sleep now.

And with that summary of my trip, this journey comes to an official end. Howl on !!!



Notable Places Visited

(in order of first appearance; numbers are shown on the map on the proceeding page with different colors used to help in differentiating clustered locations)

- Delaware Water Gap National Recreation Area (1)
- Indiana Dunes National Park (2)
- Indiana Dunes State Park (3)
- Buffalo Gap National Grassland (4)
- Minuteman Missile National Historic Site (5)
- Badlands National Park (6)
- Pine Ridge Indian Reservation (7)
- Custer State Park, SD (8)
- Iron Mountain Road (9)
- Black Hills National Forest (10)
- Mount Rushmore National Memorial (11)
- Wind Cave National Park (12)
- Jewel Cave National Monument (13)
- Deadwood, SD (14)

- Mount Roosevelt (15)
- Devils Tower National Monument (16)
- Charles M. Russell National Wildlife Refuge (17)
- American Prairie Reserve (18)
- Upper Missouri River Breaks National Monument (19)
- Beartooth Scenic Byway (20)
- Custer National Forest, MT (21)
- Shoshone National Forest (22)
- Yellowstone National Park (23)
- Gallatin National Forest (24)
- Wind River Indian Reservation (25)
- Roosevelt National Forest (26)
- Estes Park, CO (27)
- Rocky Mountain National Park (28)



Notable Wildlife Observed (in order of first sighting)

- White-tailed deer
- Porcupine (road-kill)
- Pronghorn (antelope)
- Prairie dog
- Bighorn sheep
- Bison (American buffalo)
- Common crow
- Western coyote
- Mule deer
- Cliff swallow
- Rattlesnake (juvenile)
- Turkey vulture
- Badger
- Canada goose

- Yellow-bellied marmot
- Cottontail rabbit (in prairie)
- Elk
- Mountain goat
- Mourning dove
- White pelicans
- Prairie grouse
- Godwit
- Killdeer
- White-tailed jackrabbit
- Green Racer
- Gopher snake
- Red fox
- Gray wolf

- Bald eagle
- Common raven
- Black bear
- Uinta ground squirrel
- Cutthroat trout
- Sandhill crane
- Magpie
- Grizzly (brown) bear
- Golden eagle
- Pika
- Moose
- Merriam's wild turkey