## A JOURNEY THROUGH THE GRAND CANYON 2014



A view from the South Rim of the Grand Canyon

My father did a whitewater boat trip on the Colorado River through the Grand Canyon many years ago. He said it was one of the best adventures he'd ever been on. He thought it would be great if his three sons did the same trip.

And so it finally happened in July of 2014. I met up with my two brothers, Bruce and Glenn in Flagstaff, Arizona. From there we took a shuttle to the South Rim of the Grand Canyon. We spent the night in a hotel, met our fellow shipmates, listened to an orientation presentation, then tried to get some sleep, excited to start our new adventure the next morning.



Bruce, Glenn, and Scott McDonald

Our tour company was called O.A.R.S. They were the first exclusively oar-powered rafting operation in Grand Canyon National Park. They have been running commercial outfitted trips on the Colorado River (and many other rivers, worldwide) for 50 years. For more information, visit their website at www.oars.com

There are 280 miles of river running on the Colorado River between Lees Ferry and Lake Mead, all within Grand Canyon NP.

Outfitted, guided trips can include the entire length (280 miles, 18 days) or can be divided into three, smaller trips. Lees Ferry to Phantom Ranch (87 miles, 7 days), Phantom Ranch to Whitmore Wash (100 miles, 8 days), and Whitmore Wash to Lake Mead (93 miles, 5 days). We chose the middle trip. It was the longest, had the best scenery, and the biggest rapids.



So how do you get from the South Rim to the actual river to start the trip? By hiking there. The Bright Angel Trail is a hiking tract that directly links the South Rim with the Colorado River at Phantom Ranch. It's 9.7 miles from top to bottom. Although steep and challenging in places, it is well maintained. It was not as scary as I envisioned. There were no sheer drop offs along the way.





There is a campground half way down that has potable water. Beyond that, the trail descends through the Devil's Corkscrew, a dramatic series of switchbacks before finally reaching the river.



We met our river guides and watercraft at Phantom Ranch. They were just finishing the first leg of their trip, from Lees Ferry. We were not running the river on rafts, but rather rowboats, called dories.

Dories are small (17 feet long), traditional, rigid boats designed to carry four people and a guide, who does all the rowing and maneuvering with a set of oars. The boat can carry a fair amount of gear which is stored in six waterproof storage hatches.

The ends of the boat are narrow and turned upward which allows the craft to "rock" and spin more easily. The high pointed shape also cuts through the waves better. The boat travels stern first with the guide facing forward so he can see what's ahead. The bow may be squared off to accommodate a motor.

Dories are more navigable and can run the river faster than a raft. As the ultra-buoyant dories effortlessly shoot through the rapids, it can feel like you're on a roller coaster.



Why is the water so cold?

There are two large dams on the Colorado River in Arizona. Grand Canyon NP lies between them. Boulder Dam was constructed in the early 1930's and is located near Las Vegas. The huge reservoir it created is called Lake Mead. It's the primary water source for what's known as the Lower Colorado River Basin that includes the states of Arizona, California, Nevada, as well as two northern Mexican states.

The second dam is located in extreme North Central Arizona near the town of Page. The controversial Glen Canyon Dam was built between 1956-1966. It is located 16 miles northeast of Lees Ferry, considered the northernmost end of Grand Canyon NP. The large reservoir behind it is called Lake Powell.

This dam's most vital function is to provide storage to ensure enough water flows from the Upper Colorado River Basin to Lake Mead in times of drought. The other purpose is the production of hydroelectricity.



Glen Canyon Dam must release a specified amount of water to meet annual delivery requirements for the Lower Basin. Daily water releases are regulated to help keep the water level in the Grand Canyon relatively constant, but it can fluctuate depending on conditions of drought or excessive snowmelt drainage into Lake Powell.

Before Glen Canyon Dam was built, water flowed naturally through the Grand Canyon. Water levels were high in the spring but could be reduced to a trickle in the fall or in drought conditions. Water temperatures could be over 80 degrees in the summer and just above freezing in the winter.

Today, water released from Glen Canyon Dam is a consistent 46 degrees throughout the year. The water that is typically released comes from hundreds of feet below the lake's surface and is insulated from temperature fluctuations by the thick layer of water above it. As a result, water that is released into the river starts out very cold and clear. We were told that in the summer, for every 10 miles that water traveled through the canyon, its temperature went up one degree. Phantom Ranch is about 100 miles from Glen Canyon Dam, so the water temperature was about 56 degrees where we started. As you're floating down the river, the air temperature can be 100 degrees or more, but when waves come crashing into the boat during a set of rapids, it's freezing!

The cold, consistent flow of the water has also had a negative environmental effect on plants and animals alongside, and in the river. Also many drowning deaths in the Grand Canyon have been caused or exacerbated by rapid hypothermia or shock from entering the cold water. We were told by our guides "DO NOT PISS in the river at night". Getting out of your tent and being half asleep, if you slipped and fell in the river, the current could sweep you away, no one would know, and then the cold water might kill you.



**Campsite along the Colorado River** 



Our baggage rafts

There were sixteen paying customers in our group. Most of the personal gear, food, and camp supplies were hauled on three large inflatable oar rafts.



My brother, Bruce, hot and tired at the end of a long day



The tour guides were great cooks and we had three full meals a day. There was wine each night as well. Chairs were set up in a circle, and our guides would tell us interesting facts about the Park and what was in store for the next day. We listened to guitar music and told stories.

On the first night I made the mistake of setting up my tent before dinner. Afterwards it was suggested that I might want to wait until we were ready for bed. The reason? Too much blowing sand and the fact that scorpions or snakes might get in our sleeping bags before we did. We never saw a rattlesnake and on only one occasion did we see a live scorpion. But it made an lasting impression. One of the guides took us to a bush near our campsite after dark. Using a flashlight, he asked us to look closely at the ground under the bush and tell us if we saw anything. None of us did. Then he took a black light and shined it under the bush. Wow! Look at the next page. There is an unknown substance in the cuticle (outer layer of the scorpion's exoskeleton) that absorbs the longer wavelengths of UV light and then refracts the light back in different wavelengths that are visible as a blue-green glow.



Regular Flashlight



Black light - Ultraviolet



Most of the days were sunny and hot. The ruggedness of the canyon was spectacular.



However, we did have monsoon rains on one day.





Early evening after the storm. Muddy runoff tumbling over the cliffside opposite our campsite. Notice that the river water still has a greenish look to it, but by the next morning it was all muddy.



Strictly speaking, the word Colorado means "color". When the Spanish participle, ado, is added, then it means "colored". Another Spanish translation of the word is "colored red". The name was applied to the Colorado River because of the red sandstone soil of the region. When the river becomes muddy, it actually has a reddishbrown color.

Why do people go on a river trip in the Grand Canyon? For some it's on their "bucket list". It's considered one of the great natural wonders in the United States. It allows you to refocus on family members in an unparalleled way....there's a disconnect from the distractions of our busy lives. But for many, it's the thrill of riding some of the biggest whitewater in North America.



A long stretch of whitewater on the river



Scouting Lava Falls, the most dangerous set of rapids on our trip.



Lava Falls up closer. I wish I could show you a better picture of the fury of some of these rapids as we went through them. But the reality was our cameras were stowed, our hardhats were cinched tight on our heads, life-vests were tightened, and we were holding on for dear life! There was always the chance that a boat could capsize...and, in fact, one did. Fortunately no one was hurt.



**Deer Creek Falls** 



One of the neatest things we did was to explore slot canyons and waterfalls along the way. Here we are hiking up the mountainside with a panoramic view looking back at the river. Those are large motorized rafts that can hold up to 14 people.



Hiking along the edge of a slot canyon...and then looking down!







The coolest stop was at Havasu Creek. This is the second largest tributary of the Colorado River in the Grand Canyon. In the summer water temperatures are in the 70's...so it's bearable to swim in. What's most unique is the turquoise color of the water and the distinctive travertine (limestone) formations. Large amounts of calcium carbonate in the water form the limestone that lines the creek and reflects its color so strongly.



We were able swim in crystaline pools and then wade up through a slot canyon until we couldn't go any further. It was one of the highlight of the trip.





Our Grand Canyon river trip ended at a place called Whitmore Wash. Here a helicopter whisked us away, a few at a time, to a place called the Bar 10 Ranch. This is a working cattle ranch on the north rim of the canyon, open to tourists. We had a welcomed shower, snacked at the restaurant, and bought a few mementos at the gift shop. There's an air strip at the ranch where we boarded a flight back to Las Vegas.



This ended one of the best adventure trips I'd ever been on!