

THE GRAND CANYON River Runner

Number Eleven

preserving public access to the Colorado River

Winter, 2010



PHOTO © MARI CARLOS

The CRMP Monitoring Program: VEMP? TAOT? PAOT? WHAT?

By Linda Jalbert

A primary goal of the Colorado River Management Plan (CRMP, 2006) is to provide opportunities for a wilderness experience while protecting and preserving the natural and cultural resources of Grand Canyon National Park. The NPS Visitor Experience Monitoring Program or VEMP is a component of the CRMP monitoring and mitigation program that looks specifically at visitor use and experience quality. The CRMP established a visitor carrying capacity to address management concerns with experience quality and visitor impacts to park resources. As applied to National Parks, visitor carrying capacity is defined as “the type and level of visitor use that can be accommodated while sustaining acceptable resource and social conditions that complement the park” (NPS 1997). The primary factors that determine the Colorado River visitor capacity are 1) the number, size, and distribution of camping beaches, 2) the location and condition of natural and cultural resources, and 3) the number of group contacts, campsite competition, trips at one time (TAOT) and people at one time (PAOT) individuals or groups may encounter during a trip.

The VEMP focuses on the third factor by measuring several variables that serve as indicators of experience quality, especially in a wilderness setting. Beginning in 2007, NPS staff began monitoring at Deer Creek and Havasu Creek, two very popular attraction sites, to determine the level of visitation and use patterns under the new CRMP. While it is known that nearly 99% of all recreational trips stop at these sites, it is important to examine the use patterns, specifically the number of trips at one time (TAOT) and the total number of people visiting a site at one time (PAOT). The methods are fairly simple and involve NPS field staff to observe trips when they arrive, where they visit (e.g. falls area, patio, etc), and when they leave. The analysis includes determining the use patterns by looking at number of trips by day of week, length of visit, and examining PAOT, and TAOT.

The VEMP attraction site data from 2006 – 2009 is compared to data collected under the “old CRMP” to determine if the new management plan has met its goals for improving visitor experience by reducing crowding at attraction sites. Thus far the findings of the monitoring program show that the number of TAOT and PAOT is lower *(CONT. ON PG. 2)*

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JOIN GCRRA

Have you experienced a fantastic commercially outfitted trip down the Colorado River? Are you planning to have one in the future? Do you think that the opportunity to see Grand Canyon from river level should be available to everyone, even if they do not have the skill or strength to row their own boat? Did you know that the Park Service can change its management plan, including adjusting the number of visitors and kinds of trips permitted, from time to time? If you care about these issues, GCRRA speaks for you, with the Park Service and in the courts, helping preserve your opportunities to participate in a commercially outfitted river trip. Have your voice heard! Join us today! MEMBERSHIP REPLY ENVELOPE INCLUDED WITH THIS ISSUE. Visit our website : gcriverrunners.org to learn even more!

Membership includes half-yearly issues of the beautiful Grand Canyon River Runner newsletter. GCRRA is a 501(c)3 organization that has donated a portion of membership dues to Grand Canyon related causes, over \$11,000 as of November, 2009.



DEER CREEK, SUMMER, 2008 – PHOTO COMPLIMENTS OF THE NATIONAL PARK SERVICE

Field Notes

from Mari Carlos

In early May this year I felt that familiar sense of homecoming when our bus arrived at the launch ramp at Lees Ferry. We were greeted by our guides, fitted with life jackets, then given our first orientation talk back in a shady glade away from the river. When we returned, ready to raft, all of our blue bags had miraculously been stored on the 5 lone rafts that would be our floating village for the next 2 weeks. We and our remaining personal gear were loaded, ropes were coiled, and the most beautiful feeling in the world took hold as we began to drift on the Colorado River. I left my worldly cares on the beach at Lees and did not look back.

For me, every trip has many things that set it apart from the others, and this one was no exception. I was joined by two rafting buddies that would improve the content of any river group. Jake Coggin you have met in these pages before, the crusty Georgian who now counts his Grand Canyon trips in the high teens, and who still asks for the front of the boat in all the big rapids. Jim MacKenzie and I had never rafted together before, but we became good friends in years past after having met at river functions near Lees Ferry. We had vowed to raft together someday, and this was the trip.

In addition to Jake and Jim, the river veterans, I was also joined by Kay and Chris Ogden, married friends from my high school and grade school past, respectively. Neither had been to the Canyon before, so I got to enjoy their first trip as much as my own. Kudos to both - they went in with a can-do attitude and tasted of all the Canyon had to offer, no matter how challenging. There is even talk of a return trip for them in 2011. (This is at least one set of friends to whom I never have to try to explain why I keep going back!)

One of the things I especially wanted to do on this trip was to visit the Ross Wheeler so that I could take some photographs. The boat is still in remarkably good condition after having been left on the rocks there decades ago (on river left just before Bass Rapid). Brad Dimock was one of our guides, he being the noted author and chronicler of the life of Bert Loper. (See [GRAND CANYON RIVER RUNNER](#), Number Four, Spring, 2007; also [THE VERY HARD WAY: Bert Loper and the Colorado River](#), Fretwater Press, 2007.) Bert, of course, built the Ross Wheeler, so I thought my chances of getting this visit to the boat were very good.

On every river trip the day's plan usually involves a plan A and a plan B, although frequently plan C must be enacted when unexpected events make plans A and B no longer viable. My hopes for a visit to the Ross Wheeler were essentially dashed when we arrived to find a river party camping at the beach that hosts the boat on the trail above. Our flotilla proceeded on past the beach, running Bass Rapid and stopping on river right for the night at Inscription Camp. Oh well, there is always next year, right?

It turns out I gave up too easily. By morning Brad had described to Matt, our trip leader, an alternate way to access the



PHOTOS © MARI CARLOS

Ross Wheeler. It was a new hike for all the passengers and even for most of the guides. Somewhere near the remains of Bass's cable crossing on river left there is a small beach nestled into a break in the Vishnu. After we left our camp on river right and floated across the Colorado, we parked the boats at the little beach and then ascended a "trail" - I use the term loosely. There were also thoughts of what my orthopedic surgeon would say about my shimmying up this steep, unstable path. Just two months before he had inserted a screw into my fractured tibia, and I had been warned to take it easy. For the record I did take it easy, but I also completed the trek to the Ross Wheeler and back.

What a trek it was! Once we topped the schist we were on a more recognizable trail, an offshoot of the South Bass Trail. It afforded spectacular views upriver, with craggy layers of Canyon cliffs revealed through a light haze. The river below us was staunchly guarded on both banks by black cliffs of Vishnu schist. Downstream we looked across to a magnificent vista [\(CONT. ON PG. 7\)](#)

[\(CONT. FROM PG. 1\)](#) compared to the old plan. The 2006 CRMP established a system that distributed launches throughout the week, and correlates with a more even distribution of daily attraction site visitation, thereby decreasing the number of days when visitation exceeds 200 people (under the old plan) and resulting in an overall reduction in people and trips at one time.

The NPS field staff has also collected data at the LCR and Elves Chasm. The data analysis for these locations is incomplete. In 2010, we also began data collection in the Lower Gorge to examine use patterns, attraction site visitation, and the river traffic interface with the helicopter-supported operations near Quartermaster. In 2011, we expect to conduct this monitoring during the late shoulder season to examine the overlap of seasonal use patterns and effects on backcountry users.

Other components of the VEMP plan include compiling data on campsite use (e.g. type of trip and trip size), monitoring helicopter operations in the Whitmore area, and compiling data from noncommercial boaters and guides on river trip attributes such as layovers, campsite competition, and health and safety issues on the river.

The VEMP also fits within the CRMP Resources Monitoring Program, an integrated approach to monitoring the effects of visitor use impacts on park resources. Campsite monitoring is conducted twice each year to look at campsite condition following a winter season, and again in the late summer after the high use period. The monitoring includes vegetation transects, avifauna monitoring

and campsite condition ratings. The sampling design involves monitoring up to 40 campsites each trip. A range of campsite sizes, use intensity and location are considered to ensure all camp types are represented. This long-term monitoring program seeks to determine trends in campsite condition resulting from visitor use and Glen Canyon Dam operations. In addition to looking at long-term campsite trends, the NPS staff identifies specific resource issues that need immediate resolution to avoid further impacts. Park staff and partners conduct trips each year to mitigate specific resource issues including trail erosion, vegetation and soil damage in the pre-dam highwater zone, and revegetation projects.

Grand Canyon NPS welcomes comments on the various aspects of the CRMP, including the monitoring and river corridor projects. In order to provide for quality experiences and preserve park resources, the NPS needs visitors' help to achieve these goals. For more information write: GRCA_CRMP@nps.gov or call Linda Jalbert at 928-638-7909.

Linda Jalbert is the Planner/Wilderness Coordinator at Grand Canyon National Park.

Dragonflies & Damselflies of the Grand Canyon Region

by Larry Stevens

Dragonflies and their smaller next-of-kin, damselflies, are insects in the order Odonata (suborders Anisoptera and Zygoptera, respectively). These are widely recognized species, often extraordinarily colorful, with outstanding aerodynamic flight behavior and a lengthy evolutionary history. Because they are so conspicuous, dragonflies are recognized by many cultures, with stories ranging from reverent (for the Zuni and the Japanese) to lurid (dragonflies do not sew up the mouths of

region lay approximately on the equator, with the Supai Group forming in embayments along the coast of the North American craton (early continent). Although dragonflies often fly across open expanses of ocean, they cannot breed in seawater. So while the ancestors of dragonflies may have occurred as vagrants over the Supai bays, they likely were predominantly found in terrestrial or freshwater habitats. Fossilized wings of Protodonata show that the dragonfly ancestor flies were, in some cases, gigantic by today's standards. The giant griffinfly, *Meganeuropsis americana* from the early Permian of Oklahoma had a 28" wingspan. No fossils have yet been discovered of its small-dog-sized larva, which may have been a stream-bottom predator. One reason for gigantism among terrestrial invertebrates at that time was the enormous tropical forest that developed in the western European-eastern North American basin, where much of the northern hemisphere's modern-day coal beds lie. Like the Amazon basin today, those forests released a great deal of oxygen, helping raise atmospheric oxygen concentrations to nearly 27%, 1.3-fold higher than today. Insects respire passively, so higher atmospheric oxygen levels during Carboniferous times meant insects could grow much larger.

But then Whammo!, along comes the world's worst extinction event. The Permo-Triassic (P-T) extinction event took place about 250 mya, possibly as a result of a meteorite collision and/or massive volcanic outpourings in Siberia. Rapid environmental changes wiped out most life on Earth. Although the Protodonata went extinct about that time, the early ancestors of the dragonflies somehow survived and soon launched a prolific and successful lineage into post-P-T time. Damselflies, those smaller cousins of dragonflies that fold their wings back during rest, didn't arise until late Jurassic or early Cretaceous time, but have not changed much since.

Like many taxa, Odonata are most diverse in the tropics, but distinctive northerly assemblages exist as well. Changing environmental conditions through recent geologic time, such as repeated glaciations over the past 10 million years, have affected Odonata habitat availability and suitability, and those changes result in range shifts and facilitate adaptive radiation and changes in assemblage composition. In order to understand the role of a big landscape feature, like Grand Canyon, in dragonfly distribution, it is important to compare it with the fauna of the surrounding area. Hence, our emphasis on the Grand Canyon ecoregion.

The geology of the southern United States is very well known, including some paleontology on ancient dragonflies, but the

biodiversity and distribution of contemporary Odonata in the Grand Canyon region had not been studied. Dragonflies are difficult to catch, and it takes many years in a region to understand the distribution across elevation of highly mobile animals. Richard Bailowitz and I recently compiled and analyzed more than 30 years of dragonfly collection data within and around Grand Canyon to better understand Odonata biodiversity (Stevens and Bailowitz 2009).

The Odonata of the Grand Canyon region consist of a mix of tropical, boreal, and Pacific coastal species. The fauna includes 89 species (35 genera, 7 families), including 49 dragonfly species (25 genera in 4 families) and 40 damselfly species (10 genera in 3 families). A total of 58 Odonata species are found in Grand Canyon (24 genera in 7 families). Three biogeographic hypotheses account for this relatively high regional species richness: faunal affinity (origin), elevation effects on range, and landform impacts across spatial scale. Our Odonata assemblage is the result of mixing of taxa from adjacent neotropical and nearctic regions. Exogenous (externally-derived) taxa include 34.8% tropical (Mexican, Caribbean, neotropical, or pantropical) and 21.3% boreal (nearctic or holarctic) species. Endogenous (internally-derived) species (43.8%) are range-centered in North America, neither clearly nearctic nor neotropical. Unlike other taxa I have studied, the dragonfly fauna of the Grand Canyon region also includes a strong Pacific Coast influence. Adjusting species richness for the area of land in different elevation belts here shows that diversity is negatively linearly related to elevation: Tropical species have lower elevation ranges than do boreal species, while the elevation ranges of both exogenic groups overlap those of endogenic taxa.

Odonata ranges are constrained at all spatial scales, and barrier/filter and corridor effects predominate over refuge and null biogeographic effects in Grand Canyon, as compared to the surrounding region. The biogeography of dragonflies and damselflies is similar, except that 10-fold more damselfly species exist in refugia in Grand Canyon, as compared to dragonflies. In large part, this is due to the fact that small, weak-flying damselflies are not likely to disperse very far, while the darners and other large dragonflies may fly or migrate long distances. Although none of our Odonata previously were considered as rare or at risk, we found that 15 (16.9%) of the species were restricted to 3 or fewer localities, and that 4 (4.5%) of species were detected at only a single locality. Four high elevation boreal species may be at risk of extirpation though climate change impacts on their restricted montane habitats.

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ASHNEID © LARRY STEVENS



ASHNEID © LARRY STEVENS



SYMPETRUM CORRUPTUM FEMALE © LARRY STEVENS



ARGIA VIVIDA © LARRY STEVENS

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- Stevens, L.E. and R.A. Bailowitz. 2009. Odonata biogeography in the Grand Canyon ecoregion, southwestern U.S.A. *Annals of the Entomological Society of America* 102(2):261-274. Abstract available at: <http://www.bioone.org/doi/abs/10.1603/008.102.0208>.

Flying Over The Grand Canyon – Where The Heck Are We?

August, 2010 - Dave Yeomans

Does airplane noise bother you? If not, you may be alone. Do fatal airplane crashes bother you? If not, you may be alone. It's the rest of us – river runners like me and other "ground users" of Grand Canyon – that are bothered by them. So, too, are the air tour operators and quite a few other stakeholders at Grand Canyon.

In 1987 the situation was so bad at Grand Canyon that some in the air tour industry went to Washington, DC, to talk their congressmen into changing the laws so as to limit the air traffic. One of my friends had a very bad day of it, learning by telephone in his congressman's office that one of his very own planes had crashed, killing 9 people. Yes, the situation was bad. There were below-the-rim tours and willy-nilly routes and almost unlimited traffic. Owing to the crash and to numerous complaints about noise from Canyon rim visitors, things began to change. The National Park Service, Federal Aviation Administration (FAA), and the air tour operators changed things around – many times – to arrive at the soundscape and safety conditions we have today. Meanwhile, Congress passed Public Law 100-91 – August 18, 1987.

The law said, in part, that the National Park Service (NPS) "...shall provide for substantial restoration of the natural quiet and experience of the park and protection of public health and safety from adverse effects associated with aircraft overflight." A subsequent law, PL 106-181-APR. 5, 2000, required the establishment of a 20-member Grand Canyon Working Group (GCWG).

The group included co-chairs from the FAA and Grand Canyon National Park (GRCA), American Indian tribes, air tour operators, private pilots, major airlines, private and commercial river runners, hikers, and environmental stewardship groups, both public and private. The GCWG met quarterly from late 2004 to April 2006. After that time the GRCA developed some pre-draft alternatives for the GCWG to review prior to development of the Draft Environmental Impact Statement (DEIS). The DEIS will be published soon and be released for public comment.

The challenge to make sure that "50 percent or more of the park ... [has] natural quiet (no aircraft audible) for 75 to 100 percent of the day" was tedious and difficult for the GCWG and the NPS to meet. Every stakeholder group had different primary objectives and the law was written with conflicting or ambiguous language. User groups often complained of being unheard and unrewarded. The word "complex" doesn't begin to describe the suite of problems.

In the end, it is likely that the GRCA preferred alternative in their DEIS will look very much like today's management. The overflights have been controlled significantly since the late 1980s and the soundscape and safety at Grand Canyon are much improved over the conditions prior to that. This is not to say we shouldn't keep trying to make the Canyon quieter and safer. Our best chance for that is to attend the public comment meetings and to make substantive comments on the DEIS.

An Example of Complexity – High Flying Jets

The fact is, air tours, when considered alone, affect less than half the Park for less than 25% of the day – in other words "natural quiet" has been substantially restored. On the other hand, airliners, when considered alone, impact 100% of the Park more than 25% of the day – "natural quiet" has not been

restored. The Park vis-à-vis air tour noise meets the restoration criterion and if we had only air tours to consider then the natural quiet of the Park would be substantially restored – according to one part of the law.

But another part of the law doesn't allow us to neglect airliners. Even if we eliminated air tours altogether the Park still wouldn't be quiet. Computer simulations show that moving or eliminating quite a few of the airline flights would not make much difference. Besides, moving flight tracks on paper is possible whereas moving them in real life in this country's saturated airspace is another matter altogether. There are 1214 daytime and 499 nighttime commercial airliner flights over Grand Canyon. And where would you put the flights? Over Zion or Bryce or Hovenweep or Sedona?

For now it looks like we'll just give the high flying jets a pass. That's what Senator John McCain intended when he co-sponsored the bill, but the courts have never supported his view. To change the law and truly exempt the high flier noise or to change the flights themselves seems to be one of the choices this country will be facing soon.

A River Runners Policy for Overflights?

River runners in general peacefully tolerate overflights in Grand Canyon. Due to noise and the loss of wilderness-like character, we prefer there to be no overflights whatsoever, but recognize that rescue operations, tourism, and transportation all have positive aspects that make them acceptable within limits. We recognize that Public Law 100-91 – August 18, 1987, exempts helicopter noise made by flights at Whitmore Wash related to lifting commercial river passengers and boatmen out of the Canyon at the end of their river trip.

My personal opinion is that, at the very least, there should be no expansion of scenic air tours or any intrusive air traffic at all beyond the 2005 calendar year level of use. Efforts to reduce the invasion of aircraft noise into the Grand Canyon should continue. These efforts should include embracing quiet technology aircraft, more seats per flight and therefore fewer flights, moving flight paths away from sensitive areas, having seasonal respite by closing some flight corridors at some times of the year, and establishing curfews that allow longer respite after sunrise and before sunset.

The next move for the public is to wait for the GRCA to issue its DEIS. After that we should attend public comment sessions and then make substantive comments on the DEIS. Our challenge will be to learn, among many things, how the GRCA intends to move air tour routes and corridors up, down, or sideways, and to understand any suggested seasonal variations and potential new routes or fewer routes based on aircraft type and type of flight.

Find more information at <http://www.nps.gov/grca/overflights/documents/chronology.htm> <http://www.atmp.faa.gov/npoag.htm> and at <http://overflights.faa.gov/>

Dave Yeomans
Member, Grand Canyon Working Group
Board of Directors, Grand Canyon Private Boaters Association

PHOTO © MARI CARLOS

("FIELD NOTES," CONT. FROM PG. 3) that included the course of the North Bass Trail before it drops into the Shinomu drainage. With my binoculars I was able to see parts of the trail until it disappeared over the lip of the saddle.

When we reached the Ross Wheeler Brad spoke to us about the history of the boat and Bert Loper. It was the perfect setting for some great river stories, and we absorbed them with intense pleasure. Afterwards I studied the boat and shot some detailed photos. It is likely that someday the National Park Service, possibly with input from the Grand Canyon River Heritage Coalition, will have to decide the ultimate fate of the Ross Wheeler. Some think that it should be removed from the Canyon in order to preserve it, in which case it would join the other historic boats in the proposed River Heritage Museum. Others think it should remain to live out its life adjacent to the river that it was built to run.

As has been the case on my previous trips through the Canyon, every day brought surprises in many forms. At Bedrock we had all successfully completed a right run when the weather turned positively evil. An intense storm cell burst right on top of us with pounding rain and an upstream wind so fierce that none of the boats could best it. Instead they became 5 carnival bumper cars, careening off the Canyon walls and each other, none able to separate from the maelstrom until I began to think we would be blown back to the front of the bedrock and have to run the rapid again - on the left! We finally got to shelter just below the rapid. There we huddled in alcoves, shivering until the worst was over. Matt got us downstream quickly where we put in at the first available camp. While we put up tents and changed into dry clothes the guides busied themselves cooking up a huge pot of hot and spicy soup. By the time we went in for seconds the sun was out and we finished the day with the scent of rain-washed desert as we hiked.

My last full day in the Canyon gave me two firsts. I saw a kestrel, our smallest raptor, which I had never seen in the Canyon before. Later the same day I spotted movement on river right and alerted Matt. It was a gray fox! Alas, he dodged in and out of cover so quickly that I was unwilling to stop watching him in order to find my camera, but I still came away with a truly memorable sighting. The kestrel and the fox put an exclamation point on my 2010 trip. I wonder what my exclamation point will be next year?

See you downstream.

Mari

Correct Answers to Grand Canyon Quiz - page 14

1 C	6 B	11 C	16 B
2 D	7 D	12 C	17 D
3 D	8 A*	13 D	18 C
4 D	9 C	14 B	19 C
5 C	10 B	15 C	20 C**

*Surprisingly, but indisputably, switching doubles one's chances of winning. This question is a disguised version of "The Monty Hall Problem."

** Although it is not applicable in this question, pi can often be used to estimate the length of a mature river's meandering path when only its straight line length is known: A river's meandering length is roughly equal to its beeline length times pi.



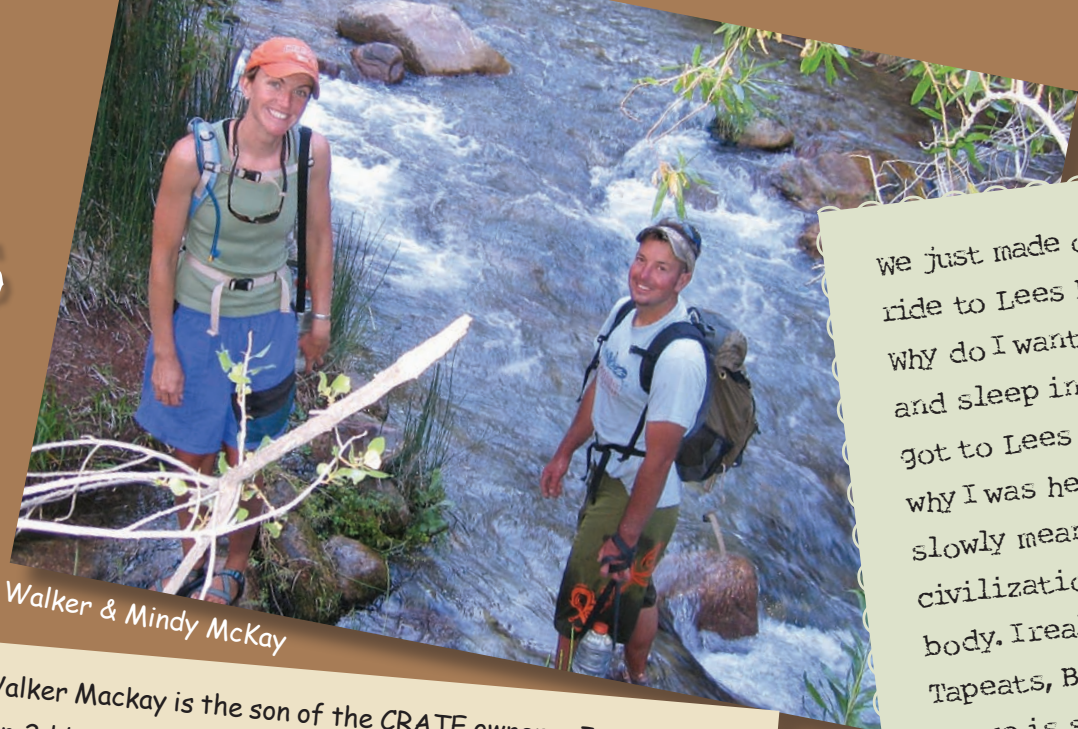
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SOME OF OUR FAVORITE GUIDES

On my first "commercial" trip (1976), our trip leader was Gary Mercado, working for Ft. Lee Company. Also ran with him in 1980. He was more fun than a barrel of monkeys, but EXTREMELY attentive to the needs of his passengers, almost all of whom had never run the river. even took my 15 year-old all the way to the top of Elves, and held the boat for us at Havasu when we hiked to Mooney and back. To top it off, we had a post-river trip party in Phoenix, and he/his wife came all the way down for that. A large picture of him running Lava hangs in my office! We never forget our "first love"!! Mike McCarthy, Phoenix, AZ



Walker & Mindy McKay

Walker Mackay is the son of the CRATE owners. In 1998 (?) he ran 2d boat with Toner--I believe it was his FIRST CO. River run as boatman. Very cheerful and knowledgeable, but we still kid him about "pranging" his prop at Lava! Walker married Mindy several years ago, and often has her swamp for him. We've run with him and thereafter both of them since about 1998. Walker is famous for doing the "reverse run" from Deer Creek Falls back to Tapeats to pick up the second boat and be back to the Patio early while most passengers make the "Death March (up Tapeats to Thunder River; across Surprise and down to Dutton Springs, then to the Patio and the River. Mindy is not only beautiful, but keeps the passengers entertained, well fed and healthy. She hikes with the best of them. These folks keep ME going--quite an achievement on THEIR part!! Mike McCarthy, Phoenix, AZ

John Toner has worked on the River for about (I'll be off a bit) 28 years, and has RUN rivers all over the world. He has all the usual (geological, etc.) knowledge and talent, but also has a wicked sense of humor which sometimes backfires on him when the passengers retaliate (ever unwittingly done a 7 mile hike with rocks, instead of water, in your backpack?--others had water; ever looked for your hat and finally locate it on top of a blooming yucca 1/4 mile away?). At the same time he is the calm IN the storm, casually capturing rattlers as they crawl over terrified passengers, and calling in the choppers if someone gets ill. Hikes like a bighorn sheep (but has no horns). I've run with John since 1995 and REALLY appreciate him. Mike McCarthy, Phoenix, AZ

John Toner at the Serengeti
Photo © Jose

We just made our third trip to the canyon. As I was sitting on the bus ride to Lees Ferry, I continued to ask myself what draws me back here. Why do I want to experience the searing heat of July, 50 degree water, and sleep in the sand for 2 weeks (this time our own tent)? As we got to Lees and started down towards the river, it hit me instantly why I was here. The sheer beauty of the canyon and the tranquility as we slowly meandered down the river was why I was here. My last glimpse of civilization as we passed under Navajo Bridge sent shivers through my body. I realized that the canyon hypnotizes me with places like Redwall, Tapeats, Blacktail and of course Havasu and Lava. Everywhere you look there is something different to see since the last trip in '08. The walls of the canyon speak to all of us in our own way. We all take something (other than sand) home with us. As we traveled the river, we all talked about how the canyon impacts our lives, some more than others, but many realizing that no matter how great or small, the canyon and the river changes us. When we first started the trip, I said this was the last time; now I am not so sure. Four trips sound good.



Paul LaFrance



"What It's About" - Photo @ LeRoy Zimmerman



"Sounds of Stone Creek" - Photo @ LeRoy Zimmerman

Hiking to Thunder River

Photos & Story by Paul LeFrance

Every trip down the Colorado River through the Grand Canyon brings special memories to anyone who has had the experience. This trip being our third down the river, we knew that there would be something special that we would take home with us, just like our previous two trips. On this trip, that something was a hike to the source of Thunder River.

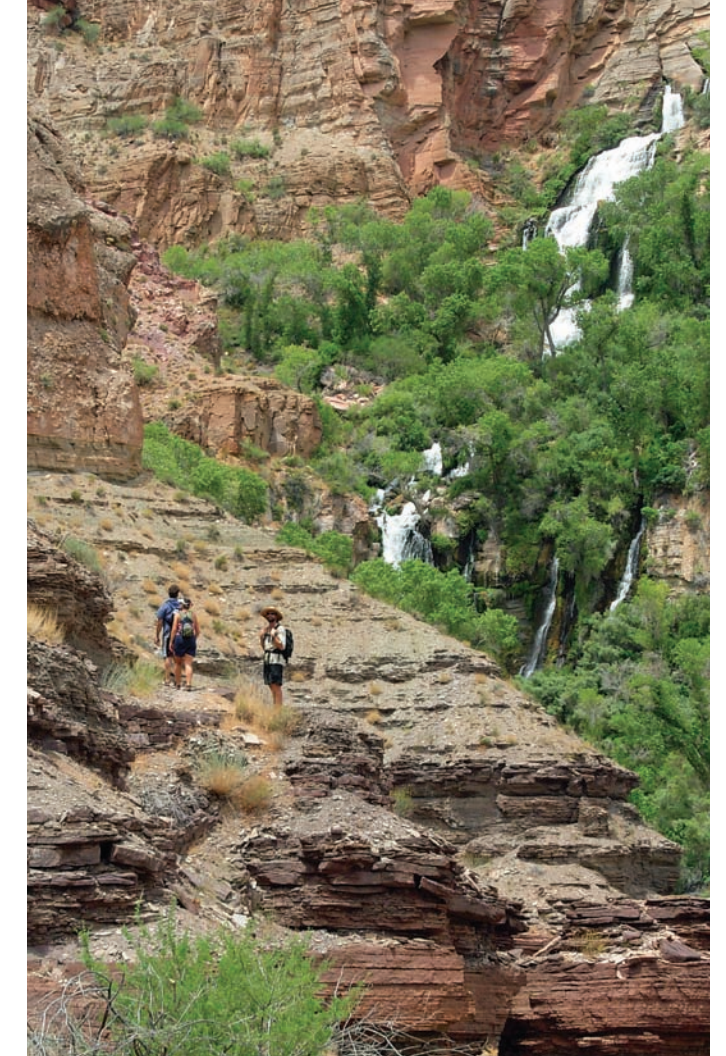
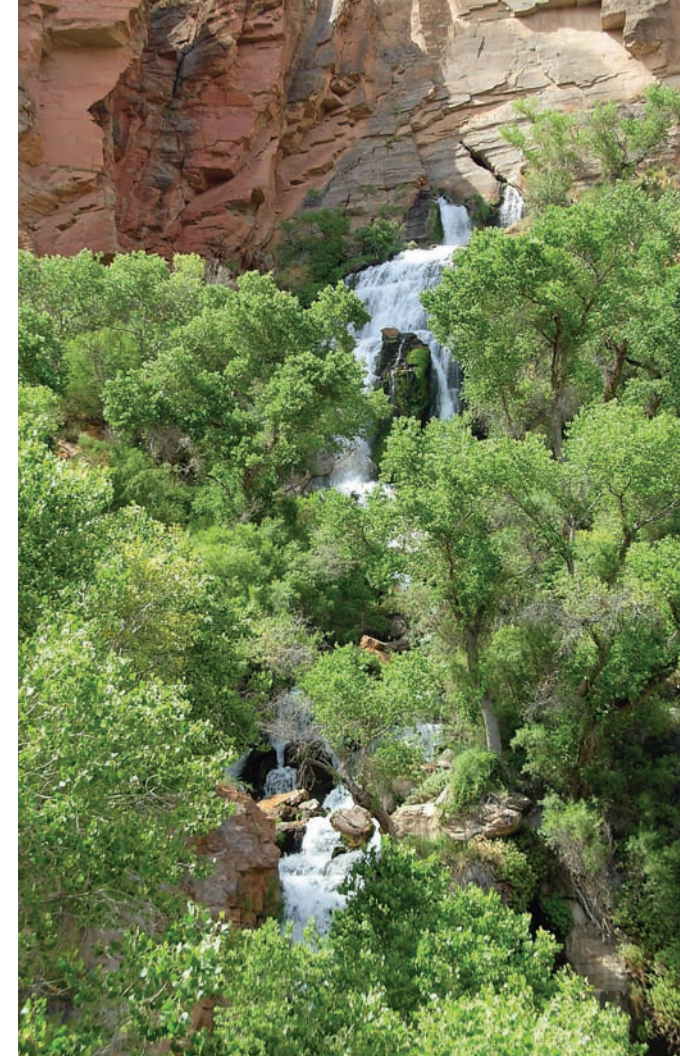
The day starts like most days on the river. Our trip leader, Matt, gives us an orientation of what the day ahead holds for us. Since this is a non-transition trip we have the luxury of a layover at Racetrack camp, giving us the day to spend at Tapeats Creek. Matt starts drawing lines in the sand describing each of the options for our group. We all know no matter which hike we choose, we will have to endure the 110 degree heat the day will bring us. For those who weren't up to a lot of hiking for the day, the choice is to stay at the mouth of the creek and relax. Another option is to hike to Tapeats "Patio" which involves hiking up the switchbacks to the side canyon and traversing along the canyon edge eventually arriving at the patio where we could spend the day in some nice cool shade and refreshing water. This is a great option for those of us who wanted to hike but did not want to hike all day. Then Matt explains the third option: the hike to the source of Thunder River. This option follows along the same route as the "Patio" option, but then will continue beyond the "Patio" for 3.5 miles. He tells us we will hike along the creek while crossing it a few times, and then ascend to the source of the river.

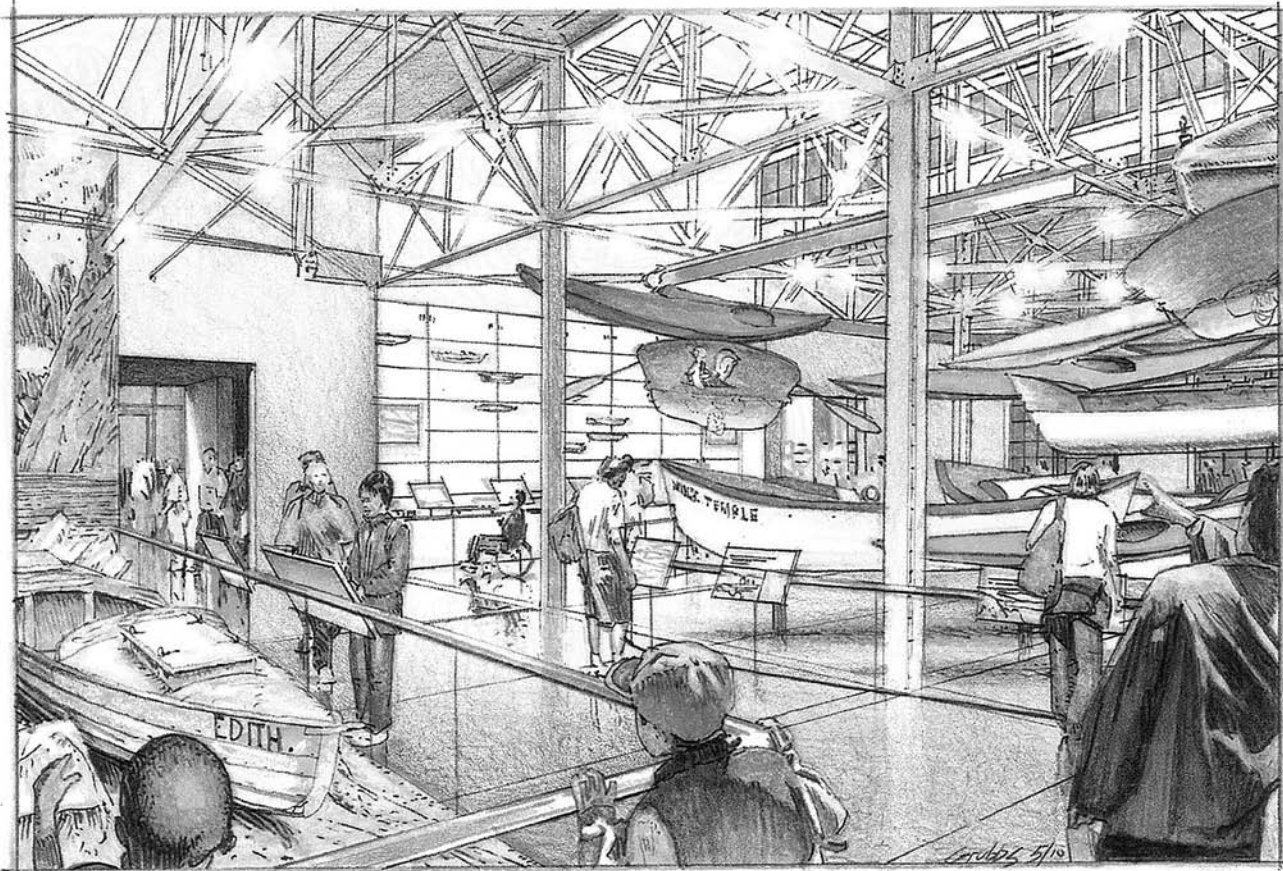
After the whole group finishes packing lunches, there are six of us who start out as the early group to go to Thunder River. As we move up the switchbacks, we look back to see the rest of the group heading towards us at a more leisurely pace. We continue our way up the switchbacks and marvel at how quickly our ascent brings us to the traverse along the canyon. The heat of the day starts to set in as we make our way across the traverse. I start looking down, a big mistake, as my feet slow to a crawl. I had a similar feeling of vertigo at Tabernacle as I moved along the knife edge and was worried I would have to stay behind and not make the hike to Thunder. I manage to "man up" and make my way along the traverse with the encouragement from our guide Dennis and the rest of the group. After we pass the patio we continue along the trail and appreciate the wonderful scenery as we hike along the creek and through a beautiful field of cactus. Dennis points out that there are some granaries that exist along the cliff walls but we have a difficult time trying to identify them from the trail. Crossing the creek along the way, we all appreciate the cool water and dunk our bodies to bring our core temps down. So far the hike has been relatively flat and cool since we have been moving along the creek and hiking in

some shade. We pass along several empty campsites as well as an unexpected sign for a toilet. Dennis explains that this is an area that can be accessed from the North Rim and has campsites reserved through NPS. The final leg of our hike is the ascent to the source via sun-baked switchbacks. As we begin our ascent, we move along the rocky trail leaving behind the coolness of the river and some of the shade we have enjoyed along our way. The summer heat is radiating off the rocks along the trail as we climb higher towards our destination. We reach a brief respite from the heat at an oasis of shade and the cool water of Thunder River. We hike up the switchbacks and the sun quickly begins to bake our bodies again as we progress along the dusty trail. As we continue along the trail we finally get our first view of the Source and despite the heat, our pace quickens. It is amazing just to see how much water is gushing out of the canyon wall, seemingly from nowhere. We continue along the trail until we reach our destination. The waterfalls generate a cool breeze that is certainly a welcome respite after trekking along the shade-less trail. Packs off, we all rest under the umbrella of the cottonwood trees lining the sides of the river. We have lunch enjoying the cool breezes the water generates flowing down the falls.

Before long, Dennis tells us that we need to start back to camp. None of the group wants to leave. We have found our own Garden of Eden in the middle of the desert. But alas, we begin the trek back to camp. As usual, it always seems shorter going back than it does getting there but certainly not any cooler. As we retrace our path, the clouds start looking ominous on the horizon as we move through the cactus field. Dennis points out a former Pueblan camp, even finding some pieces of pots used during that time period. It starts to rain, fortunately just light showers, rather than some downpours for which monsoon season is famous. As we move along the trail we meet some people from a private trip heading towards the river source and wonder why they would make the trip so late in the day. Finally, we arrive at Tapeats Patio and meet the group that chose that option for the day. From there, we all continue to head back to camp as the rain lets up, and move back along the traverse (not looking down this time), reaching the switchbacks that would bring us back to camp.

As we all gather at camp that evening we regale each other with stories of our adventures of the day. Some of us just enjoyed relaxing at the mouth of Tapeats, others describing how peaceful the Patio was and our own story of Thunder River. The hike to Thunder River is one you should not miss if you have the time and opportunity to make the journey. It is certainly one hike I will never forget and hope to do again.





Grand Canyon's Proposed River Heritage Museum to be Part of Interpretive Education Campus on the South Rim

Content courtesy and with permission of Grand Canyon River Guides

In our last issue we introduced our readers to the Grand Canyon River Heritage Coalition – a diverse group of river stakeholders (including GCRRA) dedicated to celebrating and preserving the vibrant river running history, culture, traditions, and diverse river craft of the Colorado River through Grand Canyon. GCRHC's main goal is to raise tax-deductible funds for project advocacy – public outreach tools designed to promote the development of a state-of-the-art Grand Canyon River Heritage Museum at the South Rim of Grand Canyon National Park.

Is the project intriguing? Certainly. But is a River Heritage Museum actually *possible*? Absolutely, but only if we garner the staunch support of the river community (that means you!) *and* expand our focus to the public at large (you can help with that too!). This project has its roots in the General Management Plan of Grand Canyon National Park that envisioned a broad interpretive education campus at Grand Canyon's South Rim, housed in the historic buildings across the railroad tracks from the Bright Angel Lodge. The River Heritage Museum is therefore a critical component of a much larger picture, as it will serve as the important catalyst for the rejuvenation and re-purposing of this historic area into a thriving "Village Interpretive Center" worthy of this iconic national park.

To further pique your interest, we would like to share an artist's rendering of a museum interior view from the Feasibility Study conducted by the Pfau Long architecture team from San Francisco.

These boats will "speak," but only with your help. Please consider supporting our project advocacy efforts today with a tax deductible contribution either by mail or on our website. And spread the word!!!

Grand Canyon River Heritage Coalition
P.O. Box 936
Flagstaff, Arizona 86002
www.gcrivermuseum.org

First Light

Squat on a shaving rock at Zoroaster.
 In the gut of the schist gorge,
 you cannot see where the sipapu sun
 rises to the east this morning

Out of the Little Colorado,
 carrying chocolate to the mainstream,
 stirs Navajo sandstone and sacred
 Hopi salt into the Colorado.

In the minute or so it takes
 to extract my razor and cream
 from a ziplock TSA hasn't screened,
 a turbine-propelled tide from Page eats
 at the blue stripes of my \$7.00
 Cortez Walmart sneakers.

Down in Phoenix and L.A.?
 Get yourselves ready for a nice
 air-conditioned day!

I loose my amputated beard
 to the current, consign my DNA
 to sediment

On some downstream beach
 a heron may stand
 and fish upon.



PHOTO © GREG HOBBS

Though I cannot see,
 I know a few Harvey House
 South Rim pilgrims have walked
 this very morning
 to a ledge high above
 the condor's nest,

They see what I see,
 wherever the light
 touches first
 is holy.

Greg Hobbs
 7/28/2010

Grand Canyon Quiz—20 Questions

By Gary Ladd

In the 40 years since my first Grand Canyon river trip launched I'm still trying to regain my equilibrium. I've relocated to the Grand Canyon area, I've literally spent years within the canyon as a river-runner, backpacker, day-hiker and photographer, and I regularly present programs and publish books on Grand Canyon topics. (All of this happened after I held respectable jobs.) And, of course, I continue to want to know more about the canyon. For those of you who are in the same boat, I offer you a short quiz. Its 20 questions will pinpoint how well you know Grand Canyon—its natural and human history—and it may reveal if you're a good sport in your scholarly pursuits. Look for the best conventional answer. Answers can be found on page 7.

1. Beach erosion along the Colorado River in Grand Canyon has become a problem. What's the biggest cause? The windy-day unintentional collateral ingestion of sand by hundreds of thousands of ravenous river runners since about 1963.

The beach sands are really still there, but they have been overrun by tamarisk tree "forests" since 1963.

The "temporary" storage of Colorado River sediments upstream of Grand Canyon in Lake Powell, the reservoir behind Glen Canyon Dam.

Soil compaction and habitual shuffling of river-runners as they carry their dry bags, always loaded with too much stuff, from boat to campsite, and, the next morning, back to the boat.

2. Why is the South Rim about 1,000 feet lower than the North Rim?

a) Heavy visitation on the South Rim.

b) Much of its original mass has been converted to energy as radioactive decay continues to consume the South Rim's extensive uranium deposits.

c) The unloading of Earth's crust by the carving of Grand Canyon has resulted in an asymmetric rebound of the Kaibab Plateau; asymmetric and more pronounced because more canyon carving has taken place on the north side of the Colorado River.

d) It's the gentle downward tilt, north to south, of the Kaibab Plateau across which the canyon cuts, east to west.

3. Every morning the flow of the Colorado River from Glen Canyon Dam increases. Why?

a) Uncontrollable spillway overflows produced when members of BLOAT, the Big Lake Outdoor Activities Team, jump into the lake every morning at 6 am.

b) The apparent increased flow does not really originate at Glen Canyon Dam; it's really a water displacement effect as river runners and piles of duffel are loaded onto boats at Lees Ferry every morning.

c) It's caused by upstream movements of the Humpback Chub toward the dam as they attempt to avoid electro-shocking operations in Grand Canyon.

d) It's the hydropower operations at Glen Canyon Dam responding to increased demand for electricity as the western U.S. begins its day.

4. Absolutely no evidence of dinosaurs has been found in the rock strata of Grand Canyon. Why not?

a) Early studies by the National Park Service deemed dinosaurs were incompatible with human visitor activities. So, they were terminated.

b) They were just too big and clumsy to thrive in the rugged terrain of Grand Canyon.

c) The future site of Grand Canyon was covered by an inland sea during the age of dinosaurs.

d) Dinosaurs lived only after Grand Canyon's rock units were created.

5. Most rapids are located at the mouths of side canyons. Why?

a) The side canyons are overflow channels used by flood waters when rapids become major obstructions.

b) That's where river groups hike and camp for the night. The roar of the rapids has been found to be soothing to sleeping river-runners.

c) Flash floods and debris flows down the side canyons have obstructed the river with boulders to create turbulent sections of the river that we call rapids.

d) Sand, grit and stones dumped from the boots of generations of river runners at the conclusion of side canyon hikes have accumulated until they now hinder the river's peaceful flow.

6. The Trail of Time is a spanking new 2-kilometer long exhibit at the South Rim stretching between Yavapai Observation Station and Verkamp's Visitor Center. What aspect of Grand Canyon does it highlight?

a) The long, convoluted and colorful legislative story of the creation of what would eventually be designated as Grand Canyon National Park.

b) The geologic story of Grand Canyon.

c) The history of South Rim parking lots from 1902 (when the first automobile arrived) through the revolutionary concept of locating parking areas adjacent to the Visitor Center, an advancement known to some as America's Best Idea.

d) The history of the Santa Fe Railroad at Grand Canyon.

7. A beautiful senorita arrived at a fiesta at a large hacienda. Why did she go there?

a) O'Neill Butte.

b) Wotan's Throne.

c) Isis Temple.

d) Zoroaster.

8. A game show host shows you three envelopes labeled A, B, and C. He then tells you that one of the envelopes contains a voucher for TEN 12-day Grand Canyon river trips! The other two envelopes contain coupons for Grand Canyon mules, recently-retired. The emcee further explains that you will receive whatever is indicated in the envelope of your choice, no strings attached. So, you choose an envelope and hope for the best. But before you can open it, the guy grabs one of the other envelopes and reveals its contents. Because he knows which envelope contains the river trip voucher, he has purposely opened an envelope that contains one of the mule coupons. Now, just to keep things interesting and to confuse you, he offers you the chance to switch from your chosen envelope to the other unopened envelope. If you really want to maximize your chances of winning the river trip bonanza, should you switch to the other envelope?

a) Yes, yes! You must switch to the other unopened envelope.

b) You should stick with your original choice. It's never a good idea to change horses in the middle of a race.

c) Whatever... It doesn't take an Einstein to know that switching will not change your odds of winning by one iota.

d) Immediately grab the emcee's microphone cord and strangle him with it. Then find the prize-winning envelope.

9. The Colorado River emerges cold (47 degrees F.!) from Lake Powell at Glen Canyon Dam about 15 miles upstream from Lees Ferry. But river runners often notice that the river gets warmer as it flows through Grand Canyon—warming about one degree F. every 25 miles. Why does it get warmer?

a) It's mostly the warming effect of the daily river submergence of hundreds of cans of tepid beer by soon-to-be-happy river runners.

b) It's mostly the warming effect of all the, you know,

pee that goes into the river courtesy of river runners who have consumed hundreds of cans of once-cold beer.

c) It's mostly the warming effect of the summer sun.

d) It's mostly the warming effect of friction generated within the extreme turbulence of the big rapids.

10. Why does the Grand Canyon begin at Lees Ferry, AZ?

a) Stuart Udall, John D. Lee's great grandson and 1960s US Secretary of the Interior, designated Lees Ferry as the federal government's official position on the long-running dispute about the length of Grand Canyon.

b) It is at Lees Ferry that the Colorado River crosses a fold in the rock sequence, the Echo Cliffs Monocline, which thrusts the Kaibab Formation, the rim rock of the Grand Canyon, above river level for the first time.

c) John Wesley Powell said so.

d) It is where Glen Canyon ends. Everybody knows that Grand Canyon begins where Glen Canyon ends.

11. "Captain" John Hance arrived at Grand Canyon in 1883 to become the canyon's first white resident. He soon located and worked an asbestos mine in Grand Canyon but eventually went on to pursue other opportunities connected with tourism at the canyon. For what did he eventually become famous?

a) He worked as the first Bright Angel Trail toll collector.

b) He worked for photographer Emery Kolb as a film processing technician, but quit after a famous, northern Arizona headline-grabbing argument when Emery called him an old loud-mouthed has-been.

c) He made his living by entertaining South Rim tourists by telling tall tales "asbestos" he could.

d) He moved to Washington D.C. (while working covertly for Ralph Cameron!) where the former muleskinner and prospector became the darling of the capitol's glitterati, successfully lobbying Congress for the creation of Grand Canyon National Park.

12. The gates of Glen Canyon Dam were closed in 1963. But Lake Powell, the reservoir created by the dam, didn't fill until 1980. Why did it take 17 years?

a) The Bureau of Reclamation had severely underestimated both the rate of water absorption by the porous sandstone walls of Glen Canyon and the rate of evaporation from the lake's surface.

b) A new town built and owned by the federal government near the dam, Page, AZ., immediately began withdrawing water for swimming pools, extravagant water fountains, two 18-hole golf courses and the irrigation of six large watermelon patches as dictated by the Bureau of Reclamation to demonstrate how the bureau's water projects could "make the desert bloom."

c) There were many downstream water commitments. The river in Grand Canyon and all that lived in it and all water users downstream had to be kept alive and well and happy while the reservoir filled.

d) Rainbow Bridge, located at the edge of Lake Powell, unexpectedly acted as a natural siphon, transferring water over the continental divide into the Rio Grande watershed.

13. Crystal Rapid was never mentioned as a particularly difficult rapid by Powell, Stanton, the Kolb brothers, Nevills or any early river-runners. Why not?

a) River runners were tougher back then. They were not impressed.

b) Commercial river companies kept it a secret so as to not alarm their guests.

c) The name was changed in 1961 from Skull and Crossbones Rapid to Crystal Rapid by the Board of Geographic Names at the request of the U.S. Poison Control Center.

d) It didn't become a major rapid until 1966 when a horrendous debris flow roared down the side canyon to disgorge thousands of tons of boulders into the Colorado River.

14. What dramatically boosted the number of South Rim tourists?

a) The completion of the Skywalk.

b) The arrival of the Santa Fe Railroad.

c) The creation of Grand Canyon National Park

d) The invention of the camera.

15. Who wrote, "It seems intended by nature that the Colorado River, along the greater portion of its lonely and majestic way, shall be unvisited and undisturbed.?"

a) John Wesley Powell, Colorado River explorer, 1869.

b) Ellsworth and Emery Kolb, first to film a river trip through Grand Canyon, 1912.

c) Lt. Joseph Christmas Ives, US government explorer, 1858.

d) National Park Service River Management Office internal memo, 1919.

16. According to most geologists, about how old is the Grand Canyon?

a) 6,000 years old.

b) 6 million years old.

c) 60 million years old.

d) 600 million years old.

17. About 800 to 1,000 cubic miles of rock have been removed by weathering, erosion and, specifically, the work of the Colorado River to create the spectacle we call Grand Canyon. But something close to 50,000 cubic miles of rock and sand have been deposited by the Colorado River at its mouth. Where did all the additional debris come from?

a) Most of it is burned out Las Vegas light bulbs.

b) Nearly all of it is old paperwork generated by the U.S. Government and state attorneys during 100 years of litigation over the law of the river.

c) Most of the debris is composed of sunglasses, hats, river maps, boats, motors, and copies of "Russell's Flip-free Boater's Guide" lost when boats have overturned in House Rock, Crystal and Lava Falls rapids.

d) The extra debris came from regions upstream and downstream from Grand Canyon and from rock units that once lay above today's Grand Canyon rimrock.

18. Near the foot of the South Bass Trail in Grand Canyon there's an old metal boat chained to the rocks at the edge of the river. It's named the Ross Wheeler and it was built by Bert Loper. After whom was it named?

a) The river-runner son of Senator Stern Wheeler.

b) The first superintendent of Grand Canyon National Park.

c) A murdered friend of Bert's.

d) The man who bought the boat from Bert and who later used it to row through Grand Canyon five times without an upset. He left it behind on his sixth trip after a nasty flip and loss of all three of his barometers in Serpentine Rapid.

19. Phantom Ranch was originally known as Rust's Camp. After a visit by Teddy Roosevelt in 1913 it was called Roosevelt Camp. In the 1920s the name was changed yet again, this time to Phantom Ranch. Why was it renamed Phantom Ranch?

a) The ranch was renamed shortly after it was visited by Edward Phantom, the man who beat Roosevelt in his attempt to regain the presidency in 1916.

b) In the summer of 1929, just as the ranch manager—a staunch Democrat—began seeking a new name for his inner canyon business, a car owned by a west coast tycoon staying at the El Tovar Hotel accidentally rolled off the rim and into the canyon. One wheel of the vehicle landed near the ranch. The manger named the ranch after the vehicle, a Rolls-Royce Phantom.

c) It was named by architect Mary Jane Colter after a nearby tributary canyon of Bright Angel Canyon.

d) The name was changed shortly after Teddy Roosevelt accidentally shot and severely wounded one of his North Rim hunting companions, Tommy H. E. Phantom.

20. The length of Grand Canyon as measured along the Colorado River is 277 miles. The length of the canyon's convoluted rims, however, is considerably more. How many miles of rims does Grand Canyon possess?

a) About 550 miles, double the length of the river.

b) About 870 miles, pi times the river's length.

c) About 2,700 miles, ten times the river's length.

d) Nearly 5,500 miles, an example of Benford's Law.

Answers can be found on page 7.



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