

Southwest Focus

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Colorado River. All photos courtesy of Tom Redd.

Warriors on Cataract

by Daniel Dustin, Deborah Tysor, Kelly Bricker (Dept of Health, Kinesiology, and Recreation, University of Utah) and Matthew T. J. Brownlee (Dept of Parks, Recreation and Tourism Management, Clemson University, South Carolina)

On May 12, 2017, 16 veterans spanning the Vietnam War era to present day combatants in Iraq and Afghanistan pushed off on J-Rigs from the Potash, Utah, embarkation point on the Colorado River toward the Big Drops of Cataract Canyon. Under the auspices of Warriors on Cataract, a non-profit organization founded by Fred Solheim of Boulder,

Colorado to honor and serve disabled veterans, the four-day river trip was supported by Tag-A-Long Expeditions based in nearby Moab. Participants included nine veterans of the 2nd Battalion, 7th Marines, combat-hardened young men who returned recently from fighting in the Middle East; two Royal Marines from the British Armed Forces; two retired Air Force Pararescuers; a retired Marine Corps officer; a former Coast Guardsman; and a former Army Security Agency Russian linguist. In addition to the Tag-A-Long crew members, four other passengers rode along to lend a helping hand.

On the drive from Moab to Potash,

the Tag-A-Long crew set the stage for what followed by immersing the group in the cultural and natural history of Utah's red rock country. At the first stop, Lin Ottinger, a self-taught geologist and paleontologist and owner of the Moab Rock Shop, discussed the origins and meanings associated with a panel of roadside pictographs depicting the region's early inhabitants. Farther down the road trip members learned about the area's mining history and various rock formations that have stood the test of time. The effect was pronounced. The group moved farther and farther away from the here and now into a timeless

(continued on page 4)

RMS Main Office

Risa Shimoda, Executive Director
PO Box 5750, Takoma Park, MD 20913-5750
tel (301) 585-4677 / cell (301) 502-6548
executivedirector@river-management.org

Executive Committee

Helen Clough, President
Juneau, AK (907) 790-4189
hcloughak@gmail.com

Linda Jalbert, Vice President
Flagstaff, AZ (928) 638-7909
l_jalbs@yahoo.com

Jennifer Jones, Secretary
Moab, UT (435) 259-2110
rivermaggot@hotmail.com

Randy Welsh, Treasurer
Ogden, UT (801) 808-2167
macwelsh@aol.com

Jane Polansky, Chapter Representative
Nashville, TN (615) 456-3843
jane.polansky@tn.gov

Ex-Officio Advisors

Lori Potter, Denver, CO
(303) 825-7000 / lpotter@kaplankirsch.com

John Putnam, Denver, CO
(303) 825-7000 / jputnam@kaplankirsch.com

Website Coordinator

Cheston Crowser, Missoula, MT
(406) 273-4747 / ccrowser@mt.gov

Professional Purchase Coordinators

Judy Culver, Prescott, AZ
(928) 443-8070 / judyculver@fs.fed.us

Anja Wadman, Price, UT
(801) 388-2214 / awadman@blm.gov

Merchandise Coordinator

Linda Jalbert, Flagstaff, AZ
(928) 638-7909 / l_jalbs@yahoo.com

RMS Journal

Caroline Kurz, Missoula, MT
(406) 549-0514 / caroline@river-management.org

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Executive Director's Eddy

We are pretty excited about a new chapter for RMS that has been over a dozen years in the making! RMS is in the process of starting our **River Studies and Leadership Institute**, whose training initiatives will serve river managers, planners, scientists and recreation advocates interested in policy and practice related to the management of our rivers.

Our first step is to hire and bring onboard a Training Coordinator. This individual, who may be in place by the time you receive this by postal mail, will be asked to assess curricula that can be offered right away and workshop content which will be configured into a delivery system like a webinar format. A few programs are available, but are not easily accessible. Others may need tweaking, and yet others may need to be polished. Existing content will include Wild and Scenic River training material.

Early visioning and planning around this type of training program and certification for river management emerged among stalwart RMS members back in 2005-06. Bill McDonald, Jen MacDonald and Bunny Sterin, who attended the Interagency River Workshop held in Salt Lake City gathered and sought input for key topics that might be addressed in a series of educational sessions, in May of 2005. They developed Core Competencies of river managers and areas of certification we wanted to offer to allow river manager training for current and future positions. Included in references provided by member Rachel Peters (thank you, Rachel!), was a River Management Certificate Discussion Paper by John Morand that posed a framework for evaluation based on skill and experience common to you and your colleagues.

An additional impetus for establishing a training institute and hiring a training coordinator was the success of a Wild and Scenic River instructor-trainer workshop in 2010 led by RMS members Jackie Diedrich, Bill Hansen and others. Since that time a vision for both a training 'entity' and support for a training facility for river management, science and policy professionals has emerged.

We stand at the door and are about



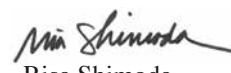
Risa Shimoda, RMS Executive Director

to walk through. We have sought and received many votes of enthusiasm and support from those who drafted the framework of a certification program in Salt Lake City; today's Wild and Scenic Rivers Coordinating Council; our River Studies and Leadership Certificate Advisors; and the former Director of the Carhart Center for Wilderness Training.

If you have topical expertise and are interested in helping out as a volunteer or paid instructor or instructor trainer, we would love to hear from you. If you are one of RMS' long on experience and expertise who may have retired from your river profession, we would REALLY love to hear from you, as you could leave a lasting legacy for tomorrow's experts by donating your wisdom of years in the seats of rangers, planners and river leadership.

Thanks go to all who authored early drafts of the 'training certification' and vision we now pursue. Thank you also to those organizations which have provided financial support for this new position. Thank you, Helen and others on the RMS Board who have kept this vision alive these past few years.

It's not yet time to applaud or sit back to watch, however, for we ain't done yet: quite the contrary. We have just begun our real journey. However, we would not have this opportunity without you and for this, we thank you ever so much. ♦



Risa Shimoda
Executive Director

Where has the time gone?

I recently had the great honor to boat through the Grand Canyon on the Colorado River. It was my second trip on this amazing river and provided a wonderful opportunity to reflect on rivers and river management. Our group ranged in age from a teen to a couple of people in their 70s. Our experiences on rivers varied – one couple had never camped; others had years of experience rafting, canoeing, and kayaking. Several of us had taken this trip together six years ago. Our lead guide had been with us on her last training trip then and now she was in charge – and what an amazing guide she was. She and her colleagues did so much to add to our amazing experience. As I've told anyone who has seen me since the trip, there are not enough superlative adjectives in my vocabulary to describe the experience – WONDERFUL beyond description.

The one thing we all had in common was our appreciation for the canyon and the river: geologic history in your face; the remnants of past Native American occupations; various American explorations and attempts to exploit the area; and the relationships of today's tribes to the area.

River Management Society can be likened to a mighty river – we started in a small trickle and have ebbed and flowed through time. There have been many challenges and opportunities in our path (like Granite or Lava Falls) and much smooth water with amazing scenery along the way. I feel like we are scouting the Lava Falls of RMS right now – we are on a path towards tremendous upheaval in our organization – changes in membership, staffing, and our work. We are still achieving our mission and goals; but in new and expanded ways.

By the time you read this, we should have our first training coordinator on board who will develop our "River Studies and Leadership Institute" training program; turning the concepts developed by our federal partners and others into reality. Courses will be offered in a variety of ways and will expand to meet the needs

of diverse groups of people involved in river management.

A new slate of officers will take over the helm of the organization in January. There will be familiar faces and some new ones. Linda Jalbert, our new President will lead us in 2018 assisted by Vice-President Bo Shelby, Treasurer David Cernicek, and Secretary, Helen Clough. I am so excited to be able to stay on the board and let others lead. My last major task as president will be our annual in person board meeting. We are gathering at Henry Horton State Park, near Nashville, Tennessee, hosted by Jane Polansky and the Southeast Chapter. Look for reports of our meeting in the next journal issue. We will also be joined by some former board members including Mary Crockett and Gary Marsh for part of our time in Tennessee.

Planning continues for Wild, Scenic, and Beyond! – the 2018 RMS Symposium. The Partnership for National Trails System (PNTS) will be holding their conference at the same time and venue. We are trying a new model this time holding side-by-side events. We will have some joint activities, be able to attend each other's field sessions, and jointly commemorate the 50th anniversaries of the establishments of the Wild and Scenic Rivers and National Trails systems, October 22-25, 2018 in Vancouver, Washington. Stay tuned for much more information coming soon.

Hope your summers were half as much fun as mine and happy fall.♦



Helen Clough
RMS President





Embarking down the great unknown...

landscape, the scale of which belies human comprehension.

The first two days on the river were a “time out,” a chance to rest, relax, and otherwise get accustomed to the red walls towering above the river channel, as well as getting acquainted with everyone else on the three-raft flotilla, including Solheim’s “Near Death Experience” displaying both the Union Jack and the American flag flapping in the wind. Two day hikes to see petrified wood and ancient ruins broke up the first 50 miles of motoring downstream. Then, after reaching the confluence of the Colorado and Green rivers on the afternoon of the second day, day three delivered heart-pounding excitement through Cataract Canyon’s massive rapids. The morning of day four was flat water again, providing



time for processing the experience before the take-out at Hite.

Unlike most recreational outings on Western rivers, Warriors on Cataract looks beyond the purely recreational benefits of river running for additional therapeutic outcomes that help wounded warriors transition from military to civilian life. Among the many benefits predicted by Attention Restoration Theory, Social Comparison Theory, Flow Theory, and Learned Helplessness Theory (as discussed in our first RMS Journal article of this series — Vol. 30 No.2, Summer 2017), one therapeutic benefit in particular stood out on this Cataract Canyon river trip. Before describing it, however, it is important to understand the backstory

from which this therapeutic benefit flowed. To do that, we direct your attention to the book *Tribe*, written by filmmaker (*Restrepo*) and author (*The Perfect Storm*) Sebastian Junger.

The Tribe

In *Tribe*, Junger recounts humankind’s communal history, with particular emphasis on the importance of small cohesive units, or tribes, in war. Looking out for one another, covering one another’s back, and being responsible for one another to better the chances of survival, is a central organizing principle of modern warfare. In the absence of a clearly defined “just war,” soldiers find meaning in living and dying for each other. Protecting the platoon, the squad, and one’s buddies is everything. Concern for the welfare of each member of the unit is the glue that holds the tribe together.

As Junger describes in great detail, problems arise when soldiers return from war, their tribe disbanded, and are left



“Semper fidelis”

alone to fend for themselves. Such a homecoming often results in social isolation, a sense of anomie, and disenfranchisement from the larger society. Soldiers struggle with their combat-related trauma, and for all too many of them the burden is too much to bear. Incidents of alcoholism, drug abuse, and suicide are on the rise, and the prospects for veterans’ successful reintegration into civilian life diminish accordingly.

What emerged on the Cataract Canyon river trip, especially among the Marines from the 2nd Battalion, was a countervailing force, a reconstitution of the tribe. The Marines rode together on J-Rigs, paddled together on a paddle boat, loaded and unloaded the J-Rigs together in a fire line, ate three meals a day together, played bocce ball and tossed horseshoes together, engaged in evening campfire conversations together, and camped under the stars together. The Cataract Canyon trip reestablished the bonds that had held them together in combat.

This time, however, instead of a common enemy to unite them, a series of frothing rapids united them. Cataract Canyon held big water (36,000+ cubic feet per second) and it pounded the J-Rigs and paddle boat relentlessly. As historian Roderick Nash characterizes Cataract Canyon in *The Big Drops: Ten Legendary Rapids of the American West*, “historically, men have marveled at Grand Canyon but feared Cataract Canyon.” The Colorado River descends 80 feet in less than four miles in Cataract Canyon, the biggest total drop along any stretch of the

river. With names like “Satan’s Gut,” Cataract Canyon’s rapids, especially in springtime, offer a humdinger of a ride. Surviving the canyon’s Big Drops was like winning a battle. It was all for one and one for all.

Additional bonding involved the paddle boat. When given the chance, the Marines and their British counterparts welcomed the challenge of running the big rapids in a smaller vessel. Watching the soldiers paddle doggedly in cadence through the rapids, right the paddle boat when it flipped, scramble back into it, and then continue to forge ahead into more whitewater, was like watching the predictive power of Attention Restoration Theory (being away, extent, fascination, and compatibility), Social Comparison Theory (building camaraderie with like-minded others), Flow Theory (skill mastery and engrossment), and Learned Helplessness Theory (rediscovering agency) at work. The therapeutic value of the experience was obvious.

Throughout the four days, there was also a constant stream of teasing and laughing among the Marines that could only be shared by men who had been totally reliant on, and responsible for, one another in combat. Especially during the evening campfires, and often into the wee hours of the morning, the Marines joked with one another in a way that no outsider could. As the days wore on, even the most reserved of the Marines let their guard down and began to open up and join in the banter. This reformation of the tribe appeared to be the most powerful part of the river experience.

The Promise of River Running as a Therapeutic Medium

Fred Solheim believes the primary therapeutic value of river trips like the one through Cataract Canyon is creating a support group that can sustain itself in the weeks, months and years following the trips. To that end, he has secured and distributed 40 computers to date to facilitate veterans’ post-trip communications. Solheim views these river trips as but a beginning to nurturing, long-lasting relationships. The challenge is to replace the combat tribe with a civilian tribe that can coalesce around new kinds of communal experiences, whether they be running rivers, climbing mountains, taking nature walks with families, or any other shared outdoor activity.

Anecdotal reports from many of the 450 veterans served by Warriors on Cataract since 2011 indicate that this kind of sustained support is indeed ongoing, and post-trip testimonials like these from the May 12th Cataract Canyon outing offer additional evidence of river running’s therapeutic potential:

River running with veterans in settings like Cataract Canyon provides a novel context for cultivating a renewed sense of

“Thank you for giving me this amazing opportunity to reunite with my brothers and reconnect with who I am. With the pace of today’s world, it is easy to forget where I came from and who I am. This trip allowed me to rejoin my brothers, who shared their stories and showed me I am not alone.”



“This trip has done so much for me. Just being together with my fellow Marines was very therapeutic. There is so much that my wife and family don’t understand, and being back together with some of the guys from my own unit brought joy back into my life. To be together in such a beautiful place made it so much better. It was the happiest I have been in a long time. It made me look forward to life.”



“Thank you for providing a compelling reason to step outside of my ‘normal’ life rhythm. This trip has given me the opportunity to think about how I am approaching my challenges. The camaraderie of other veterans and the peaceful environment were incredibly valuable and opened my mind to more of life’s possibilities.”



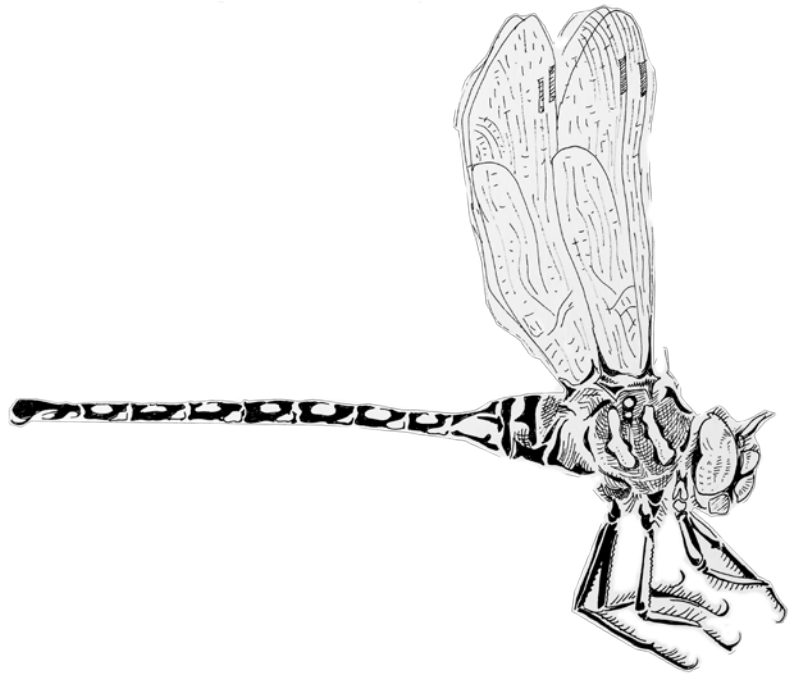
brotherhood and sisterhood among men and women who have been scarred by war. River running provides veterans with a group challenge that transforms them into a tribe again while simultaneously allowing for reflection on their life circumstances. Rivers offer a non-clinical and non-judgmental atmosphere in which veterans struggling with a variety of physical and psychological injuries experience normalcy as they are embraced by a larger than life landscape, a humbling reminder of humankind's place in the order of things. River running can thus alter veterans' perspectives on life in a way that reduces the weight bearing down on them. For our nation's veterans, river running is both health affirming and health promoting. River running builds on their strengths and nurtures their resilience. It has restorative power.

Conclusion

While traditional clinical therapies for post-traumatic-stress-disorder, traumatic brain injury, military sexual trauma, and other wounds of war have proven effective, many veterans shun them because of the stigma associated with seeking help, or because of their aversion to the Veterans Administration or other conventional treatment centers. For these veterans, there are few other established pathways to recovery.

The promise of river running as a therapeutic medium for Armed Forces personnel, veterans, and their families is only now beginning to be studied scientifically. Until the results of these studies are known, we must rely on anecdotal reports and testimonials to illuminate the possibilities. Participants on trips like the one described here report again and again that river trips are transformative and life affirming. Consequently, they appear to offer promise as a complement to traditional clinical therapies. In the meantime, while awaiting the seeds of scientific inquiry to bear more fruit, we can only anticipate a future when a doctor's prescription for what ails veterans and civilians alike may well be "Take a four-day river trip and come back and see me in six months."◆

*We would like to thank the
Kendeda Fund for its
generous support of this work.*



What is Known of Rapids

We studied the push, the curls,
the drops and rocks.

Then from hesitation to
exhilaration

in twenty seconds or less we are
through

and on flat water.

Flat swirling water that has lost
it's way, water disassembled and
spent.

And we,

we proceed down stream

braver than before.

– CJB



The unofficial history of river professionals is often oral, or documented in a personal journal at best. We invite you to share “that epic moment” in your river career, or any moment of inspiration (essay, poetry, artwork). Think of late night campfire tales and let us be educated, if not purely entertained.

*Please send submissions of any length along with photos, drawings, and credits to the RMS Journal Editor:
caroline@river-management.org.*

The Opportunist

Because he has lied to me
and because I had something
I didn’t want him to find,
he watched me closely as I
watched him.

He hoped I’d leave to the
kitchen so he might slip back
to being “The Opportunist” and
see if he could find one thing
left unguarded for his liking.

NO! For all my practicing and
preparation of his deceit, I
kept him close within my view
because I am young to the ways
of the river. The teachings of
this older generation is all I
know. I will not let him out of
my sight.

They are secretive. I cannot let
a creature with the brain size of
a peanut be much more clever
than I. If he is the master of
being caught off guard, then
I am the Queen of Caution. I
will continue to sequester my
belongings delighting in being
the “Queen of Caution.”

*by Adrian
Indian Canyon Ampitheater
April 10, 2017*



Photo: Kelly Rowell

RMS Listserve Archive

by Gary G. Marsh

Are you encountering a challenging issue or problem?

Or, maybe have just a question about a work-related subject you are dealing with and you'd like to hear from your fellow river professionals? You can easily do this by asking the RMS Listserve/E-List:

<http://www.river-management.org/listserve>

Here's how to connect and participate:

- **Log in** and click the Member Profile under the Membership Tab.
- Go to **My Profile**, then to **My Features**.
- If you are subscribed to the E-List titled "RMS Listserve," click on that link to travel to the listserve, where you can post a message or search past posts.
- If you are not subscribed, just hit the 'plus' icon to be included.
- You can unsubscribe at any time, and resubscribe at a later date by revisiting your Member Profile and adjusting your setting.

RMS started the moderated Listserve for members on January 30, 1996, on a wide variety of topics. Members who participate receive timely email responses (similar to a bulletin board or chat room) from fellow members which are routed via the RMS Moderator. The Moderator posts all responses as an email thread on the topic at hand. The Listserve threads from May 2000 to the present have been archived for your reference and offer answers to common river management, policy and science questions in a fully searchable database. Some river management topics simply do not age!

This year we reorganized the listserve archives for messages posted beginning 1999, when we started capturing and saving the messages. Roughly 555 messages are posted for the years 2000 to 2016, averaging 35 messages per year. While we started the listserve in 1996 and hundreds of messages were posted from

its beginning through November 13, 1998, we have only an index of subject titles and not the actual messages or responses, due either to system or formatting issues.

Thanks to previous work of Caroline Tan Kurz, Jennifer MacDonald, Chet Crowser, Rick Waldrup, and Risa Shimoda, I had the opportunity to help on this project and format each message so you could use the searchable database by year and topic in the RMS Archives via:

<https://drive.google.com/drive/folders/0B4c7vKxgYK06TjZDQU8yMmhaSDQ>

You can view, copy and print any listserve archive message but you cannot edit the message. Also, the RMS disclaimer states: "The questions and replies in this database represent the knowledge and opinion of the authors. They do not necessarily represent the position of RMS or its Board of Directors, and RMS cannot attest to their accuracy."

RMS is largely a volunteer organization. Being from the Volunteer State, I often volunteer, get volunteered, or find myself asking, "Why in the world did I volunteer?" But once into it, I always learn something worthwhile. In the end I am glad I did it (most of the time). As I worked on this project I noticed several things worth sharing with you as a member or future member:

- These documents were not edited in any way and give you, the researcher, a snapshot in time of the event/issue, problem/solution, and technology of the day. You may also pick up a sense for generous members who made the effort to respond and help out given the technology, expertise, and their experience at the time.
- Before you start digging into your office files or asking a question to the listserve, these historical documents may give you background, prior research, or new ideas/questions to think about before you

post your question or start a new search. Topics vary and represent the breadth and diversity of river management and our membership. They also provide insight into your past or present co-workers or colleagues and their thoughts, even though they may have changed offices or professions.

- When you are searching by a particular issue or subject matter, the search engine will land on your key search word or phrase which could range from 2000 to the present and may not necessarily appear in the topical index title.
- Some of the topics (e.g., human waste management, invasive species, carrying capacity, and Wild and Scenic Rivers) have extensive dialogue; they give an interesting history and insight into many issues which are still relevant.
- Most all messages posted got a response and are worth checking out before you reinvent the wheel or think no one has ever asked a similar question. Members have had no fear about asking a question and going into great detail. Many messages reflect the philosophy, persona, humor, objectivity, and professionalism of the responders. The messages are listed by the person who posted the question, date, and topic, but also reveal who were the "go-to" members in specific categories.
- Some of the posted messages are just FYI, and contain multiple topics from newsletters and websites. Remember that phone numbers, e-addresses, and website links may be no longer accurate. If you need to contact the member, you may find them in the RMS Member Directory, available to you as a current member upon logging into the website with your user name and password.
- Grants, job info, conferences, papers, or symposium/workshop information are not saved in the listserve archive. This data may be found elsewhere.◆

In 2015, the Colorado Water Conservation Board (CWCB) staff observed that while river parks were popular in Colorado, there were no national standards, guidance, or even successful examples of effective signage. Seeing the opportunity to make a difference, they tackled it themselves and saw that an effort to develop a replicable, scalable program to create awareness of safe river behavior will benefit communities elsewhere. CWCB is a member of the South Platte Working Group (SPWG), a collaborative working group of jurisdictions seeking to improve river conditions and recreation opportunities south, and upstream of the City and County of Denver.

CWCB and the SPWG turned to the River Management Society to develop a set of common instructional graphics and verbiage to 1) serve facility owners and public officials; and 2) provide an easy-to-remember signage-based communications system that promotes safe practices among citizen users.

RMS, in turn, partnered with members and colleagues in the river-specific outdoor recreation management network to secure high quality professional input in the areas of law, recreational safety, and instruction: Beth Weigandt, American Canoe Association (ACA); Charlie Walbridge, long time safety expert for the ACA and American Whitewater; and, Jim. Moss, J.D, an attorney specializing in human-powered outdoor recreation. We interviewed those who will be managing, administering guidelines, and dealing with safety responses along the S. Platte and elsewhere in the region where rivers have become important community destinations.

Recommendation

We recommend using a handful of key messages that advise proactive behavior, delivered twice:

I. Parking and Staging Area

Explain best practices. Viewers will most likely be parents with families, group leaders, and others in positions of responsibility and suitable references for online and other resources. (See table.)

K.I.S.S.

Keep it Simple to be Safe



Encouraging safe practices among new users of restored, renovated and rediscovered rivers

Wear a life vest/pfd	This is one piece of equipment that will save your life.
Know the water conditions	The river's flow rate can increase rapidly, during your trip. Flows are sometimes too high for tubers to float safely. Learn the 'too high for tubes' level and if it approaches that level, take out to finish your float safely another day.
Be smart: avoid being impaired	If you float while impaired, you may not notice a hazard or remember what to do in case of an emergency. Stay sober so you can enjoy the river tomorrow.
Float with a friend	Floating with friends is the best way to share an awesome day on the river: you can help each other building river running skills and provide extra hands, heads and hearts when someone in your group needs emergency assistance. How many are in the group? What are their swimming, first aid and river running capabilities? Be ahead of the game by knowing this before you get to the river.
Know where you are	Know your location relative to your put-in point, takeout and notable hazards, river features and landmarks via land trail mile markers, and street/bridge signs. Call 911 in case of emergency and be prepared to tell the agent where you are to make it as easy as possible for emergency professionals to find you. [Know where your group's car keys and phones are located.]

Two additional messages were added in response to South Platte Working Group input:

- 1) "Upstream paddlers have the right-of-way"
- 2) Specific to local rivers, whose preferred routes are marked with large boulders: "Navigate between signal boulders"

II. On the River Path

Between the staging area and the put-in, reinforce the same messages with quickly-readable graphics.

Outreach

We also recommend initiatives and outreach components to help establish the South Platte Working Group and Colorado Water Conservation Board leadership in this arena of public safety. The safety outreach brief is also located at www.river-management.org/safety-signage.

If your municipality is interested in utilizing the graphics but needs graphic assistance to help modify the artwork to develop your 'you are here' stylized maps or incorporate your town's colors, sizes or other graphic standards, contact:

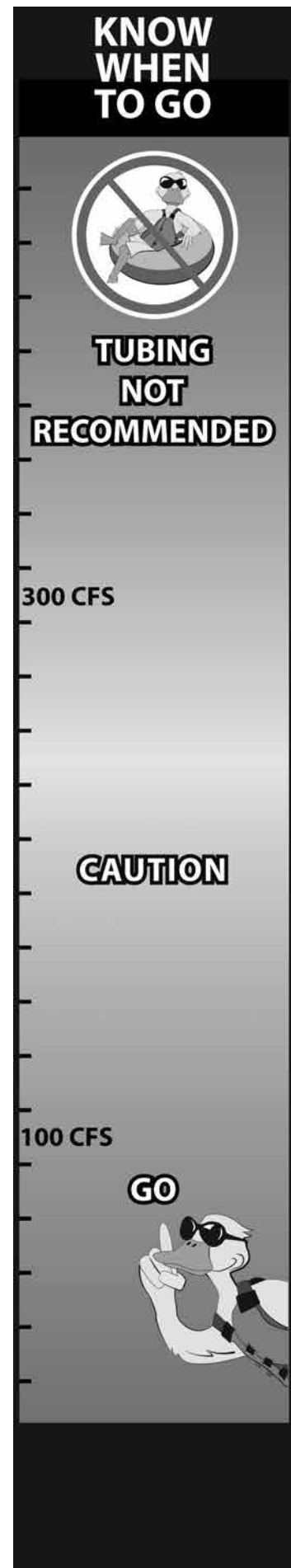
Ken Abel

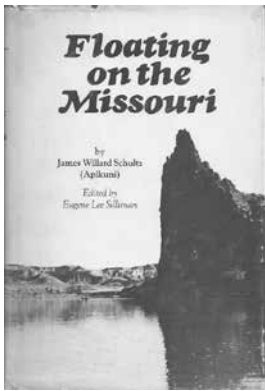
kabel@dhm.com

Have fun with these as you help build higher safety awareness!♦

The original art files for the South Platte River Safety Signage program are free for your use.

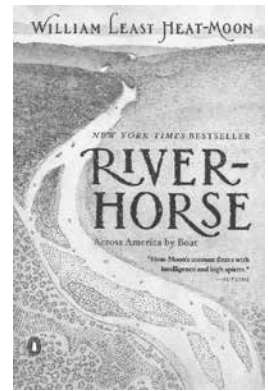
Visit the RMS website www.river-management.org/safety-signage for a review of the graphics and here is a link to the free, downloadable (eps/Adobe Illustrator) files:
<https://drive.google.com/open?id=0B4c7vKxgYK06LVRfMX1xbEo0bUk>





Book Reviews

Floating on the Missouri by Schultz *River Horse* by William Least Heat-Moon



by Herm Hoops

Across from my couch is a large bookshelf holding a hundred or so books on river exploration, many of them hardbound first editions from Ives and Powell to Staveley's recent book on Big Red. I was lucky in the 1960s to have inspired the Middlebury (VT) Bookstore to do searches and find the books I was interested in, and when they located one the money had to be there or it could be gone. They still contact me from time-to-time, but a few decades ago I decided to concentrate on the place I live and love, the Rivers of the Colorado Plateau. So except for a few special books I purged my collection of those not related to the Colorado Plateau.

A few weeks ago I was looking through the book shelves and began rereading *Floating on the Missouri* by James Willard Schultz, edited and published by the University of Oklahoma Press in 1979. I had worked on the Upper Missouri River at the Charles M. Russell National Wildlife Refuge and worked with Chan Biggs of the Bureau of Land Management who is "The Father" of the Upper Missouri National Wild and Scenic River. Chan even had a dimensional model of the river made with little lights in the river so at meetings people could be shown where the river needed to be protected from intrusions.

Floating on the Missouri is one of my favorite books. In the fall of 1901 Schultz (also known as Apikuni by the Blackfoot people) and his Piegan wife Nataki took a long float trip down the Missouri, sort of because, in the sense of Huck Finn, they thought the neighborhood was going to hell and they wanted to see it in its natural glory one more time. They built a plain, sharp-bowed, flat bottom skiff they named "Good Shield" and planned

to live off the land so the skiff held their tent, stove, bedding, clothes, guns and ammunition and a month's light provisions and still had plenty of room. They were so excited and impatient about the trip that they loaded the boat at Fort Benton at night with a kerosene lamp and launched as soon as they could see the current, and headed for the confluence of the Missouri and Milk Rivers; now much of the place is under the waters of Fort Peck Reservoir.

This was more than just a nostalgic trip—it was a trip through space and time, capturing memories of early encounters along the rivers with various Peoples of First Nations, white trappers, the carefree days of the buffalo hunt when the world was more than The Peoples mythology and was still populated with deer, elk, bear, wolf, bison, and the sky was often darkened with flocks birds and waterfowl. The book, for example, captures the end of the great northern bison herd, eighteen animals near the Musselshell River—according to Schultz by Lewistown's French half-breeds, "a bunch of worthless, sneaking scavengers of the plains" (page 130).

If you live or work in Montana, or run on the Missouri River, and you are interested in the way things were or you are a Northern Plains naturalist, you should read this book. James Willard Schultz, along with George Bird Grinnell were instrumental in naming and setting apart Glacier National Park. If you are interested in the history of the area, Schultz wrote thirty-eight books that attracted many admirers of western life and history, including *Why Gone Those Times - Blackfoot Tales* (1).

Surprisingly, a few days after reading Schultz's book, *River Horse* by William Least Heat-Moon appeared in my mail

box from a friend. The book was a New York Times Bestseller and William Least Heat-Moon was the author of *Blue Highways* and *PrairieEarth*. I took a look at the reviews and was not impressed—they seemed like mechanical, computer generated statements that were at best generic in nature. I put it on the coffee table to read "sometime."

"Sometime" occurred the following day as I sat in pain and welded to the couch. I picked up the book and thumbed through it, reading a few passages. At first it appeared to be a sort of mirror image of Buzz Haldane Holmstrum's epic cross country water journey from Portland, Oregon, to New York City (2). Looking at the various crude maps I came across the part of Heat-Moon's travels through the Missouri Breaks of Montana. Having just read *Floating on the Missouri* and my past experience at Charlie Russell NWR I decided to begin the book.

It didn't take me long to feel like I was reading a poorly written, water bourne, latter day copy of Steinbeck's *Travels with Charley* by an arrogant and egotistical writer. A difference being that Steinbeck toured with his poodle Charlie, while William Least Heat-Moon traveled with his unnamed friend (?) Pilotis in their boat River Horse, along with a small traveling entourage of canoe, kayak, writer, photographer and a sort of chase vehicle.

I spent time along the Hudson River where their trip began, so I endured the early chapters. But as the book went on I discovered that it was a good descriptive account of the rivers that transect America. As I read, I began seeing some similarities with Gene Marine's *America the Raped* of the early 1970s but focused on rivers.

Some parts were difficult to wade through, only to find that, several pages later I had missed the point, and had to go back and reread and think! William Least Heat-Moon had subtly interspersed political commentary, the impact of exotics, natural and human history, river management, and some not-to-subtle environmental messages.

On seemingly barren land he wondered: "If God in his infinite wisdom had made it worthless" and ponders the difference between dang river and Dang River. He describes dams: That engineers could build such colossal things credits their intellect that they actually build them discredits their foresightedness." His description of the river boredom is eloquently captured in pages 331-333. And he succinctly captures the origins and misgiven consequences of out of date laws like the Taylor Grazing Act and 1872 Mining Act.

Although he traversed the Charles Russell NWR he somehow overlooked the historic ghost town of Rocky Point, where the river boats unloaded when the river dropped and they could not make it to Fort Benton, and for some reason failed to encounter some of the premier wildlife (bighorn, elk, massive prairie dog towns and associated ecosystems, and the work the refuge has done to enhance wildlife habitat. He spent time with Chan Biggs, but seems to have gained little from the encounter. Finally, I wonder if the zebra mussels they saw in the locks of the Erie Canal were cleansed from the boat, or did the larva spread to the Columbia River?

Still if you work for the Corps of Engineers, or ply the waters of Allegheny River, or if you want to immerse yourselves on river related histories, environments, refresh on someone who, it turns out has your view of the environment and politics of rivers, you should give the book a read.♦

(1) *Why Gone Those Times - Blackfoot Tales*, by James Willard Schultz; University of Oklahoma Press, 1974.

(2) *The Doing of the Thing - the Brief Brilliant Whitewater Career of Buzz Holmstrom* by Welch, Conley & Dimock; Fretwater Press, 1998.

Collecting - How Did You Get That Book?

by Herm Hoops

I have always like to read. By accident or design in the mid-1960s I began reading river books associated with the rivers I planned to run. The passion eventually evolved into a collection of first edition hardcover books on rivers, but in the mid-1970s I began narrowing my collection to just books of the Colorado River and Colorado Plateau.

I was lucky in that our local bookstore, the Vermont Book Store in Middlebury, took a great interest in the subject and kept doing book searches for me at little profit. I was not affluent, but I kept a reserve of money because when many of the books became available you had to commit financially and often that commitment was quite high. For example when my copy of the 1st Edition of *Exploration of the Colorado River of the West* by John Wesley Powell became available the price was \$598, and had to be paid immediately.

As I traveled around I would stop at small town libraries and search their stacks. It seems there was a time when libraries collected books on things like expeditions and exploration as popular topics of the times. As small town libraries have become strapped for cash, making a reasonable offer for an old, little used book provides them with cash for new books and me with a reasonably priced part of my collection. Before I realized the number of signed books the Kolb's sold, I purchased a copy of *Through the Grand Canyon from Wyoming to Mexico* from a dealer for \$144. I later bought a copy of the same book in better condition from a small Vermont library for \$50.

As my collection grew I noticed some of the books were stamped: "Donated by Dinosaur Nature Association," or "Property of National Park Service, Omaha Regional Office." Some were marked "deaccessioned" but others did not have that mark. I wondered, had the others been taken illegally?

In 1987, I was working at the Rocky Mountain Regional Office, at Parfet Street in Denver. We were preparing for a big move to a new building on Alameda Avenue. One day, prior to the move, I walked into the regional library and on the floor were several large piles of books. On top of one of the piles, in near mint condition, was a little used copy of *Exploration of the Colorado River of the West* by John Wesley Powell. I was curious as none of the books in the pile seemed to be related and so asked the librarian if the books were being packed for the move. She responded "no, they were being surplussed" as very few people had checked them out in the past few years! I was stunned, and pointed out that the Powell book was one that was very critical to water rights and other research that might be done by Regional office or Denver Service Center staff and that it was a very valuable book that would bring over

(continued on page 28)

Managing Water Recreation in Bulk



A typical Saturday on a small stretch of the Guadalupe. Photo: MJR Photography

by Mike Dussere

The Water Oriented Recreation District (WORD) of Comal County has been a member of RMS for about 10 years. It's always interesting when I'm able to make it to the conferences because most river managers have a slightly different set of problems than we do here, at least in size and scope. WORD is a special District created by the Texas Legislature in the late 1980's because there was a familiar story going on here. Canyon Lake was dedicated by the Corps of Engineers in the 1960's, creating relatively stable river flows into the Guadalupe river. The river began to see more and more people coming to float, and with that many campgrounds, lodging, and other facilities sprang up.

Unfortunately, when large amounts of people come, so do the associated problems of trash and behavior. Under Texas river law, any navigable waterway is held in trust by the State and the public has a paramount right to navigate. As you may know, it gets a little hot in South Texas and it's no surprise that a gorgeous and cold river (the water empties from the base of Canyon Dam at 125 feet deep) quickly became overrun. Comal County found itself with a need to provide law enforcement and cleanup but the only revenue to pull from was the County's general fund of property and sales tax. Thus, landowners were paying for the services needed to deal with tourism.

So, advocacy groups formed and the Legislature wrote up a chapter of code to allow for the creation of a District that had specific authority over State waterbodies within its' boundaries and was vested with lawmaking and taxation authority. The concept was that WORD would require all businesses to collect

user fee taxes directly from the visitors and remit them to WORD. Anyone who pays money to float, camp, lodge, guide, or store their boats within the District is paying into WORD, which turns around and provides those health and sanitation, law enforcement, and safety services. We have passed laws banning glass, Styrofoam, and small plastic containers (Jell-o shots) from the waterways. To date, WORD is the only entity of its kind in Texas. Some other rivers have tried to follow the same template but none have been passed by the Legislature.

WORD regulates water related tourism for Canyon Lake (8,000 plus acres) and approximately 30 miles of the Guadalupe river. This river stretch is one of the most heavily recreated areas in the Country. At maximum capacity, over 40,000 people can camp along the riverbanks on any given day. There are over 100 lodging venues in the area, not to mention Corps of Engineers parks on the lakeshore. All told, well over 1 million visitors per year come to enjoy. In the past, there was a lot of canoeing and kayaking. While that still exists, the number one activity now is tubing. There are 36 river outfitters in operation here. While some are small Mom and Pop operations, a few of the larger ones rent between 30,000 and 40,000 tubes per year. The total economic impact as measured in 2010 is \$84 million per year in this little District.

WORD contracts with the local Sheriff's office and Constables to place law enforcement on the roadways, on the river and lake, and at public access points every Friday through Sunday throughout the summer. On the water, patrols are out on

boats and officer teams stand in shallow, slow areas. On a Holiday weekend, we can have up to 60 officers out on a Saturday. We have cleanup contracts out for river cleanup, boat ramps, roadways, and shorelines. The lesser used areas are cleaned as needed, but the most utilized river stretches (18 miles of river) are comprehensively cleaned by crews twice per week from May through September. All told, we spend close to 70% of our annual budget on these two functions: Law Enforcement & Cleanup.

Our remaining resources go towards community development avenues such as founding a local Keep Texas Beautiful affiliate, a water safety coalition, and other education and safety initiatives. We also got into the flood warning business a few years back and designed and contracted for a real time river level system which can trigger tempest sirens automatically when the water starts to rise or manually from any phone or computer. Flash flooding is severe in this part of Texas and with people camping literally feet from the river at all times, we needed some instant response capability.

While many rivers under Federal or State control have the ability to regulate number of visitors, we were brought into a situation with the unenviable role of trying to manage the existing visitation and play referee between the interests of the businesses, the local residents, and the visiting public.

It can be a delicate balancing act for sure, but the good days outnumber the bad ones and when the bad days run together I can always grab a kayak and do a little “Site visit.”◆

Mike Dussere serves as General Manager, WORD of Comal County, Texas.



The aftermath. Photo above and below: WORD of Comal County.



My second office (below). Photo: MJR Photography





Gently Down



the Stream...

*Find the middle
of nowhere
in the middle
of everywhere
on an urban
paddling trail.*

BY CAMILLE WHEELER

In the fall of 2016, I launched my urban Texas Paddling Trails investigation. As a beginning paddler, I kayaked and canoed 20-plus miles of river, lake, creek and bayou trails in Fort Worth, Grand Prairie, Houston, San Antonio and Pasadena, near NASA's Johnson Space Center.

Throughout my metropolitan exploration of the Texas Parks and Wildlife Department's Texas Paddling Trails program, I never left the concrete jungle. Now in its 20th year, the program counts 72 officially designated public inland and coastal trails in rural and urban settings, with its most recent addition in February — the Mission Reach on a restored section of the San Antonio River near downtown San Antonio.

I paddled alone (always a bad idea) and with groups on guided tours. I made boat delivery and shuttle bus arrangements. I tried out equipment, renting or reserving four types of kayaks and one canoe.

I always donned a life jacket, but sometimes neglected to wear a hat or sunscreen. I rarely drank enough water.

I got stuck in shallow-water gravel, scraped my boat on rocks, muscled across a cove in moderate wind conditions, paddled around piles of post-flood woody debris, bumped into other people's kayaks on group tours and banged my vessel's nose into shorelines. Repeatedly.

In short, I had a blast.

I coordinated all trip arrangements by first visiting the Texas Paddling Trails website, www.tpwd.texas.gov/paddlingtrails, which offers a comprehensive array of safety and planning information. My goal, as originally discussed with TPWD nature tourism manager Shelly Plante, was to show Texans the urban paddling opportunities available to them in the hearts of big cities, near picturesque skylines and in outlying metropolitan areas.

As Plante notes, outdoor recreation conversations often focus on rural Texas, where people are more likely to have ready access to waterways, be familiar with access sites and own their own kayaks or canoes.

Outings typically involve urbanites exploring rural

areas, but not vice versa, says Plante, who helps process paddling trail applications, works with community partners and coordinates launch events for newly designated paddling trails.

"It's trying to get urbanites to realize what's in their own backyard," she says.

It's a matter of encouraging novice paddlers like me to build their comfort levels close to home. New paddlers (perhaps intimidated by the logistics of some rural paddling trails) can practice on shorter urban loop trails where they will remain in cellphone range, are closer to assistance if needed and won't require shuttle delivery to a separate take-out point.

Once paddlers gain experience, and start purchasing their own equipment, they'll have the resources to start exploring more trails.

"You have to start where beginners are to get to those next levels," Plante says. "You can't say, 'Here are these amazing experiences for a 25-mile paddle' and expect them to go out and do it — it's not reasonable."

The better message, she says, is, "Here are some beginner things, and once you get experienced, here are all these opportunities that exist all over the state and are one hour, two hours out."

NEVER PADDLE ALONE

My journey began on the Fort Worth Nature Center and Refuge Paddling Trail, designated in November 2015 as TPWD's 70th trail. Romanticizing the idea of solitude, of which I found plenty just 10 miles from downtown Fort Worth, I made a rookie mistake: I paddled alone.

Plante emphasizes that on-site paddling trail kiosks feature these basic safety rules: Never paddle alone, and always file a float plan — telling someone where you are going and when you expect to return.

Ron Smith, the lead mapper for TPWD's paddling trails program, says novices might ask: "What could happen to you in a boat that only goes 2 mph?"

Smith, a program specialist within TPWD's Inland Fisheries Division, provides the answer.

"Well, there's a lot that can happen," he warns. "When you get out there by yourself, you're kind of stuck. Things get elevated."

Smith, a 20-year veteran paddler with TPWD, once made an emergency repair to his leaking kayak after paddling a short distance on the San Marcos River. He started out with a group, but no one noticed that Smith had fallen behind when his cracked kayak started to sink. Smith pulled his kayak to shore and patched it with duct tape carried in his waterproof bag.

I was nowhere near that prepared for my Fort Worth paddle. But I did exchange cellphone numbers with Tim Tenery and his wife, Lori-Ann, at their Fort Worth Kayak Rentals business where I signed rental paperwork. Then, I followed Tenery and his assistant Roy Ash to the nature center where they unloaded my kayak from a trailer and

helped me plan my estimated four-hour trip.

As I pushed off into the West Fork of the Trinity River, I immediately liked the maneuverability of my lightweight Old Town Vapor 10 kayak.

And I liked Tenery's suggested route: Head southeast, toward Greer Island, to explore part of the official TPWD paddling trail. Then turn around to explore the path that local paddlers treasure — a narrow stretch of the Trinity River that cuts through bottomland hardwoods and the eastern edge of the Cross Timbers forest ecosystem.

On the official TPWD trail, I paddled into a magical world of wetland marshes separated by long, thin islands. Great egrets, snowy egrets and great blue herons stalked prey, ghostlike, in an aquatic sea of smartweed, bur-reed and water willow.

I turned around, keeping my eyes peeled for the Trinity River's resident alligators. Deep into the river's narrow stretch, off the official paddling trail, I suddenly spotted a young alligator straddling a log. Shuddering with fear and wonder, I studied the reptile's webbed toes, bony scales and open, unblinking eyes.

PADDLING INTO THE WIND

Grand Prairie offers a different kayaking experience on the Joe Pool Lake and Walnut Creek Paddling Trail: a trip across open water into a shaded stream.

Inside the Camp Store at Loyd Park, where I'd made a kayak reservation by phone, volunteer Peggy Shea gave me some bad news: Wind speeds were gusting between 11 and 15 mph; anything higher than 10 mph rules out open-water paddling. It was too dangerous to let me cross the lake.

OK, I said, disappointed but grateful for Shea's decision. I wanted to be safe. Then, Shea and another volunteer, Don Ullom, considered my question: What if I only paddled Walnut Creek?

They agreed to let me paddle to the creek from the beach of a semi-wind-protected cove. I followed Ullom to the beach where he pushed a fishing-style kayak, an Emotion Stealth Angler, into shallow water. Ullom helped me board, pointed me in the direction of Walnut Creek, and told me to call him when I was ready to return.

I paddled into a stout, manageable wind, searching for the buoy marking the Walnut Creek entrance. The creek and the cove, with its graveyard look of bare trees rising above the water's surface, bore the marks of flooding from 2015. Upon reaching the creek, I suddenly wished I wasn't paddling alone as I worked my way around floating masses of woody debris.

Once tucked inside the creek's banks, I could hear, and just barely feel, the wind whistling through the trees. Spooked great blue herons flew before me, disappearing from view around the bend.

I left Loyd Park feeling a healthy dose of respect for the elements. For the rest of my urban paddling trails investigation, I would stick to this resolution: No more would I paddle alone.

Above: Fort Worth's paddling trail offers a natural escape on the Trinity River.

Below: The paddling trail in Grand Prairie combines lake paddling with a journey up the winding, shaded waters of a creek.





PHOTO © BEE CREEK PHOTOGRAPHY

The Buffalo Bayou Paddling Trail takes paddlers through the heart of Houston.

A SKYLINE JOURNEY

One week later, I stood in a downtown Houston parking lot, staring up at the concrete lanes of Interstate 45 almost directly above me.

As we boarded a Bayou City Adventures shuttle bus, the other paddlers and I, gathered here on a mid-October Sunday morning, excitedly discussed our trip: a guided kayak tour on a portion of the 26-mile Buffalo Bayou Paddling Trail that cuts a path through Houston's urban core. Officially designated as a TPWD paddling trail in 2009 — and the first such venue in Houston — the trail features 10 TPWD access points.

No one in our 18-member group had paddled any stretch of Buffalo Bayou before. So it was with a special sense of wonder that we set out, following lead guide Nick Ellis single file like baby ducks behind their mother as our tandem Ocean Kayak Zest Two EXP boats snaked around the first bend.

We settled into the pace dictated by the narrow, winding bayou as we paddled beneath the Loop 610 bridge and into the River Oaks neighborhood. Its mansions and manicured green lawns stood in stark contrast to upended tree roots, eroding banks and scraps of trash — evidence of recent flood damage.

Yet thanks to the conservation efforts of many people and groups, including the Bayou Preservation Association, which works in partnership with other organizations, this historic waterway once used as an urban drainage ditch is on the obvious road to recovery.

A great egret stood still as we passed, its white feathers shining bright in the sun. Cicadas sang from the forest-green loblolly pine, sycamore and black willow trees that marked our passage into the heart of the city.

At the journey's halfway point, we stopped for a break on a sandy beach so close to the River Oaks Country Club that we waved at golfers on the fourth green. As we stretched our legs, Ellis said some paddlers on this beautiful urban trail have told him, "I've never been out in the woods this long before."

Ellis laughed. With Houston's skyline soon to come into view, we were obviously a long way from the country.

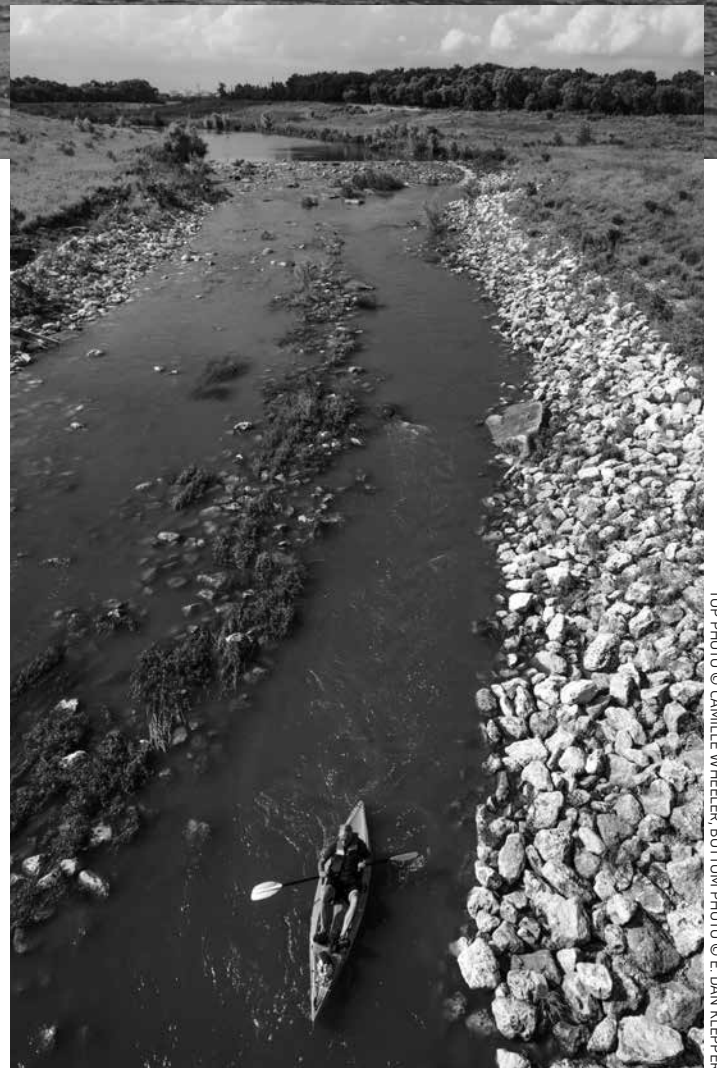
As our group returned to the water, we encountered more paddlers. The closer we got to downtown, the busier the bayou became. I felt like a celebrity as pedestrians waved to us from footbridges and hike and bike trails.

No, we weren't in the woods. But we were surrounded by nature, in the middle of nowhere in the middle of everywhere.



Above: Matthew Driffill of the San Antonio River Authority blasts down one of the many chutes on the Mission Reach portion of the river.

Below: Paddlers can experience a restored San Antonio River on the Mission Reach, which became TPWD's 72nd paddling trail.



TOP PHOTO © CAMILLE WHEELER; BOTTOM PHOTO © E. DAN KLEPPER

THE REBUILDING OF A RIVER

In late October, I paddled San Antonio's ultra-fun Mission Reach: an 8-mile section of the San Antonio River where a remarkable ecosystem restoration is reconnecting the city to its cultural and historical roots.

The Mission Reach became TPWD's 72nd, and newest, officially designated Texas Paddling Trail in February through a partnership agreement with the San Antonio River Authority. The \$271 million Mission Reach ecosystem restoration launched in 2008 has returned the river channel to a more natural state, reversing the damage caused by flood-control measures.

In 1954, the U.S. Army Corps of Engineers authorized the San Antonio River for channelization. Floodwaters were successfully diverted away from the city, but the straightening of the river's natural meandering course crippled the riparian ecosystem, with floodwaters concentrating within the channel itself.

Now, as a result of the decade-long revitalization, the river is once again following its age-old natural, meandering course as it flows near the city's four historic Spanish missions in the San Antonio Missions National Historical Park.

The river authority will continue to manage the trail,

URBAN PADDLING TRAILS IN TEXAS

In addition to the Fort Worth, Grand Prairie, San Antonio, Houston and Pasadena paddling trails mentioned, here are a few other urban paddling excursions to consider:

LADY BIRD LAKE PADDLING TRAIL (AUSTIN)

Loops from 3 miles to 11 miles long near downtown Austin.

BEAVER POND PADDLING TRAIL (LEWISVILLE)

A 1-mile loop through shady willow thickets, water lilies and open water in an area known for wildlife north of Dallas.

DALLAS TRINITY PADDLING TRAIL

A 10-mile trip near downtown with contrasting segments — an altered, channelized river segment in the first half and a tree-lined natural river corridor in the second half.

LAKE ARLINGTON PADDLING TRAIL

An 11-mile paddle along the shores of a lake in the Dallas-Fort Worth Metroplex.

BOSQUE BLUFFS AND BRAZOS BRIDGES PADDLING TRAIL (WACO)

A 2-mile loop on the Bosque River or a 5-mile loop on the Brazos River through the middle of town.

MUSTANG ISLAND PADDLING TRAIL (CORPUS CHRISTI)

A series of routes along the coastal island's western shoreline with fishing and birding opportunities.



which has been open to the public since 2013, and plans to incorporate the official TPWD Texas Paddling Trails logo into existing signage.

The Mission Reach's 447 total acres of aquatic and riparian woodland habitat restoration provide natural flood control. The river also features riffles, runs, pools and embayments — all essentials of a diverse river channel.

And on a gorgeous late-October afternoon, I experienced the most dynamic component of the Mission Reach: rock and concrete canoe/kayak chutes that — I can say this now — are both fun and functional.

I anticipated a relaxing journey with my paddling companions, recreation superintendent Matthew Driffill and community relations coordinator Summer West of the San Antonio River Authority, who booked our shuttle trip with Mission Kayak.

But after we launched our kayaks at Roosevelt Park, two miles south of downtown San Antonio, Driffill told me about the Mission Reach's chutes: manmade slides, of sorts, designed to move paddlers downstream during even the lowest river flows.

Doubting my paddling skills, I nervously asked: All right, how do we do this? Driffill smiled and said the chutes do all the work for you. Just point your kayak's nose right in the middle of them. And with that, he paddled down the first one and disappeared from view.

After West went down, it was my turn. Envisioning a steep roller coaster, I feared I would turn over. But my lightweight Perception Tribe 9.5 kayak easily handled the chute's short, gentle slope. I let out a whoop as the current propelled me downward, and straight into West's kayak as I lost control at the bottom.

I apologized, and West laughed, making me feel better by recounting the time another inexperienced kayaker went down this same chute backward.

Several chutes later, as we completed a 5-mile paddle on a partial Mission Reach trip, I realized I had lost count of the chutes and the wildlife we observed: great egrets, snowy egrets, double-crested cormorants, great blue herons, little blue herons, belted kingfishers, a pied-billed grebe, sandpipers, turtles and a diamondback water snake.

The birds were so enjoying the pools and riffles that Driffill's instruction to me on one chute was to "stay right of the egret on the rocks."

"GATOR! HUGE GATOR!"

The final stop on my urban paddling trails tour was the Armand Bayou Paddling Trail in Pasadena, one of the original seven coastal trails designated by TPWD.

Located about 20 miles southeast of downtown Houston and near NASA's Johnson Space Center, the trail is surrounded by urban development competing with riparian coastal flatland forest and tallgrass prairie habitats.

But as I discovered during a guided canoe tour in early November, the interior trail itself is as country as it gets. I reserved the tour with the Armand Bayou

PHOTO © CAMILLE WHEELER



Nature Center, which provided the canoes and the volunteer guide, Rich Fair, an electrical systems engineer for NASA.

I was joined on the tour by married couple Tammy and Syd Sexton of nearby Deer Park and Vicki Nguyen and Haylea Vige, who attend the University of Houston-Clear Lake.

Shortly after we put our three canoes in at Bay Area Park, the wildlife action heated up. Knowing that alligators thrive in the bayou — and fully expecting to see one — I jumped every time an alligator gar leapt out of the water.

We paddled deeper into the bayou, negotiating hairpin turns. Bird life was abundant, including egrets, cormorants and kingfishers spectacularly dive-bombing the water.

But at our turnaround point, we still hadn't seen any alligators. Fair prophetically asked: "You guys ready? Let's go back and find that alligator that's tired of just sitting around."

Sure enough, several minutes later, Nguyen and Vige both hysterically laughed and screamed as an alligator jumped from a bank into the bayou right beside their boat. I looked just in time to see the gator's tail end splashing into the water.

Well, shoot, I thought as we returned to the bayou's deeper channel. I'm not going to see a whole alligator today. But then I heard Fair yelling from the back of our canoe.

"Gator! Huge gator! Huge gator! Right in front of you!"

An immense alligator was leisurely swimming 20 yards straight ahead. We paddled faster, trying for a better view, but the beast slid beneath the water.

It seemed the perfect ending to my urban paddling trails investigation.

Now, of course, I want to buy a kayak. I want to explore as many Texas Paddling Trails as possible. I think it's safe to say: If I can paddle these trails, anyone can. ★

Above: Paddlers on the Armand Bayou Paddling Trail keep an eye out for alligators and the abundant bird life.

Camille Wheeler is an Austin freelance writer who is ready for her next paddling adventure.

River Management Society Southwest Chapter - Gunnison River Trip

by Susan Roebuck

Rob and I took leave of Salida in darkness and rain, towing a trailer loaded with a 16' blue raft. So thick was the cloud cover, the sky barely lightened as day came on. Forests dripped, and fog filled the mountain valleys. We descended the other side of the pass in rain, and drove all the way to Gunnison in a steady downpour. In the back of both our minds was the reoccurring thought... not the best day for a raft trip! From Gunnison we turned north onto a dark, wet highway and drove up to a Forest Service campground where we were to meet the other trip participants. The very moment we stepped out of the truck the rain finally stopped, a little RMS magic indeed! We were greeted by Stuart Schneider, RMS Southwest Chapter Trip Coordinator. Stuart explained the trip logistics and then the 10 trip participants and a dog (noted below) all travelled to the Almont Put-In:

John Putnam - Boulder
Kari Sanderson - Denver
Rob White - AHRA, Salida
Susan Roebuck - Salida
Barb Sharrow - Retired BLM, Montrose
Elijah Waters - BLM, Gunnison
Stuart Schneider - BLM, Gunnison
Margaret Schneider - Gunnison
Teresa Childers - NPS, Curecanti NRA, Gunnison
Brad Shaw - Peru
Joey the dog - Salida

*Lots of activity at the put-in, getting ready for a day on the Gunnison.
Photo: John Putnam*



It took a long time for everyone to meet up and organize at the put-in. Shuttling cars, trailers, gear, and people seems to be a big part of boating. As I waited at the gravelly put-in, I observed two fishing guides with rafts and dories, getting their gear and people organized for a day on the river. Another group, called Adaptive Adventures, had a big raft on shore and they were maneuvering their trailer. Adaptive Adventures take people with physical disabilities on raft trips and on other adventures. The boaters were busy moving vehicles and trailers, stowing gear, and readying their crafts. The fly fishermen peacefully fished, and one caught a fish I'd never seen before. He said it was a "palomino." It was bright yellow, but still a trout. Apparently they are raised at a ranch upstream and occasionally they get into the river somehow. Eventually all of our rafts, duckies and one canoe were ready to push out into the river, and set off on our exploration of the Gunnison. Everyone, including Joey, wore life jackets!

Our 18-mile journey on the Gunnison River took us through National Forest, private ranch lands, the outskirts of Gunnison, BLM, Colorado Parks and Wildlife and National Park lands. The river runs through mixed conifer and deciduous forests mixed with hay fields near where we started, and then into in a rocky canyon. The Gunnison was named for U.S. Army Captain John W. Gunnison who was a cartographer mapping the west in the 1850's. Before that it was called Tomichi by the Utes. On this day, the Gunnison's water was higher than normal, rushing along thanks to heavy snowfall in the mountains this past winter. In

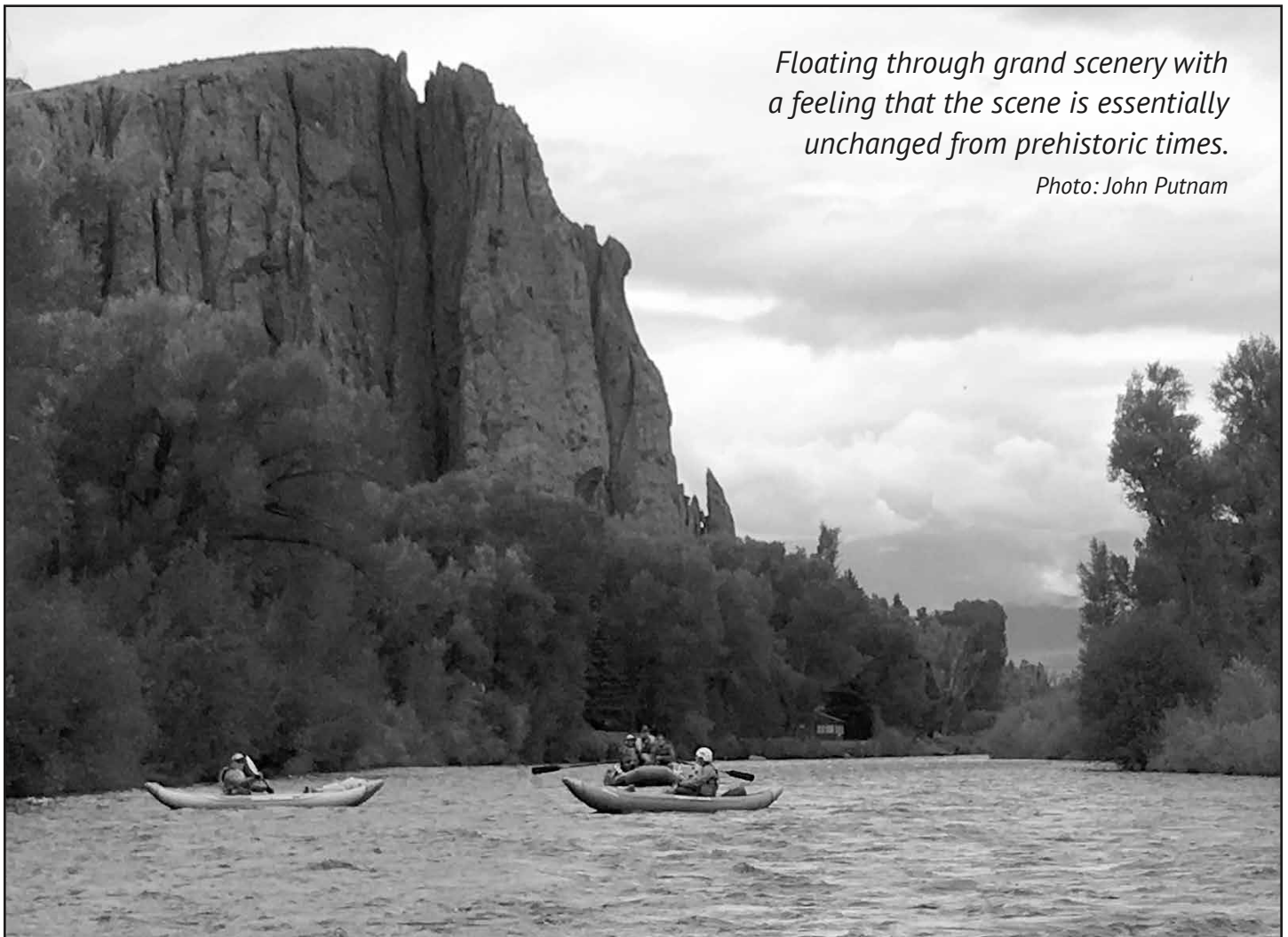
central Colorado, the Gunnison has been the supplier of water for agriculture and the city of Gunnison, and was dredged and mined for gold back in the late 1800's. In places, to a trained eye it shows all the evidence of being channelized and modified. Along the banks there are many places where ditches carry water off to agricultural fields. Though it is still a pretty river, it does not meander the flat river bottoms as it did when the Utes camped along its shores or when Mr. Gunnison first admired its clear mountain water. In recent years as our awareness has increased about the value of natural features and resources, much restoration work has been done. I would not have noticed this work, so well it is accomplished. In certain areas Stuart pointed out such features as V-bars, coir matting, willow hurdles, and riparian benches, explaining how they're built. Rob explained the effect on the river, and on floating, fishing, and wildlife. This work means the river does the things a mountain river naturally does;

forming pools and eddies, and such. Its banks are stable, under thickets of willow, native grasses and wildflowers. Erosion is controlled and the water doesn't rush so quickly to lower altitudes.

We traveled 18 beautiful river miles, through calm water and rapids, and not without excitement. The initial excitement occurred when Kari came out of her duckie while avoiding a strainer on river right. However, the scariest moment was when one of our other trip participants came upon the same strainer. He got caught on the strainer and came out of his boat. We all came around the bend to see him holding onto the large tree which was horizontal a half foot or so above fast, deep water. This is what people call a "hydraulic feature" in a river: intense, powerful water action. We could see Brad's shoulders, arms, and head--his chest was pressed against the tree, and the rest of him was in water. We could see that Brad was weakening from the effort of holding on. We could not at first determine if it would be safe for him to let go and wash through. The plan was to pull him out. Rob and I ferried Stuart to river right to assist Brad. John and Elijah had already landed their boats and were struggling through the brush to reach Brad. When they reached him they attempted to pull him out, but it couldn't be done. They yelled for him to just let go—it looked safe to wash through. Brad at that point could not hear them, as his hold failed and his

ears filled water. He let go, and washed through. He came out the other side floating on his back perfectly still. We watched in dismay while he made no attempt to swim or move. The water was relatively calm, but ahead there were more rapids and rocks. Rob and I were eddied out below the strainer and Rob threw the rope bag at Brad. Brad at first made no response, but then must have heard our yells and seemed to barely reach for and then take hold of the rope. We pulled the rope and Brad to the raft and I held onto his life jacket while Rob rowed to shore at a gravelly bank. Brad wobbled to his feet in the shallow water and we saw that his pants, which were nylon hiking-type pants, had come off and were around his ankles. He had on wetsuit bottoms under the pants. So when he was holding onto the strainer, his hiking pants had washed down to his ankles and filled with water, like a water balloon or a sea-anchor, and had been pulling him under the log. He would not have been able to swim, both from exhaustion and from having the water-filled pants wrapped up around his ankles. Brad was pale and clammy but gradually regained his strength. All of us then re-gathered there on shore feeling thankful that Brad was okay. Brad wanted to continue in his duckie but the group thought it would be best for him to ride in one of the rafts for a while. Stuart also suggested that Brad change out of his wet clothes, but Brad said no, he was okay. However, Barb said that it would definitely be better if he changed into dry clothes. Therefore Brad changed, got dry and warm, and regained his

(continued on page 31)



*Floating through grand scenery with
a feeling that the scene is essentially
unchanged from prehistoric times.*

Photo: John Putnam

(Collecting, from page 15)

\$500 on the market. I asked how they determined which books were selected to be "deaccessioned" and she told me that contracting had hired a local book company to go through the stacks and determine what books to surplus. I asked, and she looked up on her list how much the company had offered for the Powell book - \$35! So I went through the boxes of already packed books and piles on the floor and had three books returned to the library stacks.

Because of the openness of park libraries and limited staffing it was not uncommon for books and materials to "walk." So I became curious, and began asking several nature associations how they procured books. The general consensus was that, especially up until the 1970s, associations purchased books on request for each park library (3 at Dinosaur NM: Jensen, UT and Dinosaur and Lodore, CO) and sometimes they also replaced a worn, damaged or missing book on request. In addition the associations also usually purchased a book for the appropriate regional offices and the Washington Office libraries.

Given, for example, the number of times the NPS Omaha and then Rocky Mountain Regional Office moved, it is not surprising that their books wound up in the used book market - especially if they hired a book buyer to thin the stacks!

Unfortunately when I began collecting I did not recognize the importance of at least keeping receipts, let alone the legitimacy of the books' sales origin. But a large share of the burden rests squarely on an agency's shoulders. It is imperative for them to keep accurate records, hire qualified librarians and protect the resources in their libraries.

The conundrum is, in times of fiscal austerity, what do you do - lock them up from use or take the risk?♦

The Vermont Book Shop

ROBERT DIKE BLAIR

4/16/83

38 Main Street
Middlebury,
Vermont 05753

Phone 802-388-2061
S.A.N. 123-2037

Mr Herman Hoops
RD 2
Middlebury, Vermont

Dear Herman:

Here is a list of books quoted to us by a western dealer. (I have not checked this against what you have requested or ordered.) He does say some of these have been quoted to other people, so if there is something you want very much, better let me know promptly.

Kolb, Ellsworth. THROUGH THE GRAND CANYON FROM WYOMING TO MEXICO. Macmillan, 1914, 1st ed. Spine fade, hinges weak, otherwise good. Illustrated. Signed by Kolb. \$144

Kolb Brothers. THE GRAND CANYON OF ARIZONA, Kolb Bros, 1912, 1st ed. Some shelf wear. Photo illus. Wrappers, pictorial cover. \$104 ("wrappers" usually means soft cover)

(no author) GEMS OF COLORADO SCENERY. No date, Tamman Co. Pictorial wrappers. Good. \$66.00

Duke, Alton. WHEN THE COLORADO RIVER QUIT THE OCEAN. Southwest Printers, 1974, 1st ed. Good, in dust jacket. Signed, letter from author enclosed. \$76.75

Faulk, Odie. DERBY'S REPORT ON THE OPENING OF THE COLORADO, 1850-51. Univ of NM Press, 1969, 1st ed. Good, in dust jacket. \$67

Henderson et al. COLORADO SHORT STORIES OF ITS PAST AND PRESENT. Univ Col Press, 1927, 1st ed. Good. \$72

James, George W. IN AND AROUND THE GRAND CANYON. Little Brown, 1900, 1st ed. Good copy. Illustrated. \$152

Parsons, E. A GUIDE BOOK TO COLORADO. Little Brown, 1911, 1st ed. Good. Fold-out map. \$50.

Van Dyke, John G. THE GRAND CANYON OF ~~THE~~ COLORADO. (Publisher not cited), 1920, 1st ed. Good, in dust jacket. \$62.75

Wilsie, Honore. THE ENCHANTED CANYON. F. A. Stokes Co, 1921, 1st ed. Signed. Good, in dust jacket. \$104.00

This is quite a glob of books for you to consider.

Dike Blair

(The quotes above are just about verbatim, with nothing omitted.)



Green River Diversion after completion, looking across to the new boat chute in center channel (8000cfs). Photo: Nathan Fey

Tuscher Dam - A Reason to Celebrate

by Nathan Fey

The Green River, from the Flaming Gorge Dam to its confluence with the Colorado River, is known for its beautiful and iconic multiday paddling trips enjoyed by boaters and anglers. For as long as any of us can remember, the only man-made obstruction to boaters and fish on this stretch has been the Green River Diversion Dam (i.e. Tusher Dam), located just over 6 miles upstream of the town of Green River, UT, and more than 120 miles above its confluence with the Colorado River. Since it was first built in 1913, the Tusher Dam and the keeper hydraulic it created forced boaters to either portage around it or run the unsafe hazard, while negatively affecting fish migration patterns.

However, the 2011 floods effectively destroyed the Diversion Dam, necessitating a full repair and creating an opportunity to improve river safety and navigability at the Dam. American Whitewater and our dedicated volunteers jumped on this opportunity, and through collaboration with local water users, the Bureau of Land Management (BLM), the Natural Resources Conservation Service (NRCS), and the public, we advocated for boat and fish passageways to be included in the final plan for rehabilitation, among other important improvements.

In June, 2014, we celebrated a great win when the NRCS released their Final Environmental Impact Assessment (FEIS) for the rehabilitation of the dam. Their preferred alternative, to Replace in Place with Passages, included a downstream boat passageway, and upstream and downstream fish passageways. In addition, under advisement from American Whitewater and public comments the NRCS allotted 147 CFS specifically to the boat chute as an in-stream water right, and another 70 CFS for the fish passages. This decision effectively removed the last man-made impediment to safe and unobstructed boating on the Green River from Flaming Gorge to the Colorado River.

March 2017 marked the official opening of the new boat

passage through the Green River Diversion (Tusher Dam). Completion of the boat passage has freed the Green River from its last in-stream obstruction between the Flaming Gorge Dam and the confluence with the Colorado River – over 400 floatable river miles through iconic canyons and historic landmarks. The official opening of the boat passage is a tribute to our efforts, and those of the many others involved. It has been a long process, and our work isn't over yet! As your boating representative, American Whitewater will continue to work closely with the dam operators and Utah's Division of State Lands (FFSL) to ensure that the boat passage meets the needs of the public during its inaugural year.

To achieve this, we have been working directly with the FFSL to improve the representation of boaters in the management and operation of the Green River Diversion Structure. The FFSL helped coordinate Friday's meeting to connect American Whitewater staff with the President of the Green River Canal Company (GRCC). Prior to the meeting, Eli Tome (FFSL), reported that the President of the GRCC is "really excited to meet people that boat the river, and understand more what the boating community needs in terms of dam maintenance and operations." American Whitewater is equally excited to maintain a continued partnership with the GRCC, and believes that the interests of the dam operators and the boating community can coexist on the Green River. Friday's meeting helped to solidify a communication strategy between American Whitewater, the GRCC, and the FFSL. We'll be the first to know if there is a problem with the boat passage, or if there must be a temporary closure. While the boat passage is engineered to provide safe passage through the diversion structure at a range of flows, there are still inherent risks involved in navigating any man-made structure and AW encourages boaters to use appropriate caution in their assessment and approach. ♦

Welcome New RMS Members



Professional

John Kelleher
Retired
Grand Junction, CO

Amy Niles
River Operations Manager
City of New Braunfels
New Braunfels, TX

Eric Pelto
State Water Trails Coordinator
Minnesota Department of Natural Resources
St. Paul, MN

Mike Tremble
Principal
Ecosystems Management Inc.
Albuquerque, NM

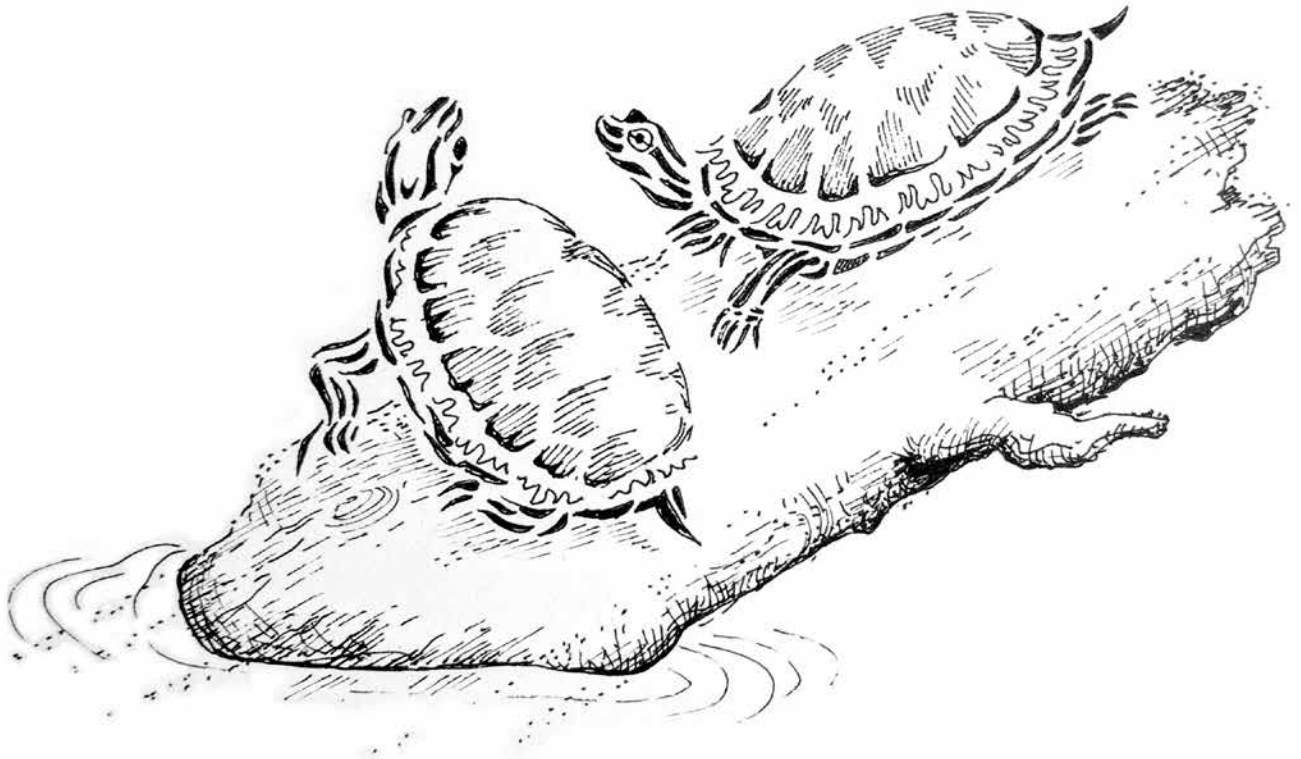
Mimi Wagner
Associate Professor
Iowa State University
Ames, IA

Associate

B. Tracy Madison
Retired
Lodi, WI

Kari Points
Outdoor Recreation Planner
Bureau of Land Management
Vale, OR

Joseph Rozsahegyi
State Director, Water Trails Advisory Board
American Canoe Association, IN DNR
Kokomo, IN



(Gunnison, from page 27)

strength soon after. After riding in the raft a couple hours—long enough to get through Gunnison’s whitewater park—he was able to get back on the horse, so to speak, and paddle his own duckie again.

Speaking of Gunnison’s whitewater park, the group had one last bit of excitement when Barb came out of her duckie while navigating through Psychedelic Falls, the largest drop in the park. All’s well that ends well though as John was quick to respond in his canoe and provided assistance to Barb before she floated too much further downstream!

After a wonderful day on 18 miles of the Gunnison River we all safely arrived at Curecanti National Park. It started to rain again as I waited with John and Kari for Rob to return with the truck and trailer to load the raft. While we waited I learned that John organizes kayak events for youth and has been to Salida many times. He told me about how his son helped a girl whose kayak came up against the F Street Bridge in Salida this summer and was pinned there. John’s son was able to pull the girl from the kayak before it wrapped. Not many knew it, but that kayak was under the water wrapped on the bridge abutment during FibArk, Salida’s annual whitewater festival.

Following the whitewater trip most all of the trip participants gathered for a wonderful dinner at Stuart and Margaret’s house—Margaret made steamy-hot baked potatoes, hearty and delicious

chili and beans, aromatic corn bread, and we had chocolate pies with whipped cream for dessert. There is nothing like a day on the water to stoke the appetite.

I want to thank the River Management Society for caring about rivers and for working to make them beautiful again, for helping to keep them abundant with fish and as habitat for wildlife, for caring about keeping the ranches supplied with water for their grazing, and for giving places for people to enjoy for generations to come. A river can do all that and more. We are all lucky to be on a river now and then!◆



When there’s cloud cover, sounds are carried more clearly. We hear sweet bird song, the rustlings of a small animal on shore, and rapids, right around the next bend. Photo: Stuart Schneider

Approaching a bend in the river, we see a family of wood ducks on a small beach. Photo: Stuart Schneider



Pointing Profit from Suds to Streams

by Risa Shimoda, through interviews with
Preston Hartman (Good River Beer) and Tim Carlson (Many Rivers Brewing Company)



Rivers continue to connect us through the paths we choose to work, and beer has connected fans of rivers for decades. Two enterprises in Colorado are circling both dynamics to grow business ventures and support for river stewardship, and you may have met the individual driving them at a recent River Management Society activity!

RMS recently caught up with members of the founding teams to learn about the vision for their respective firms, and their current trajectory in the development of brew and brand. Here, in their words are their stories.

Good River Beer

Boulder, Colorado
Preston Hartman and
Adam Odoski, Co-Founders

RMS: Where did the idea for Good River Beer begin?

Preston: Adam and I met on the Green River, Desolation Gray in 2010. We hit it off right away, and during the trip, I shared that while I was an amateur brewer, I wanted to share my beer with the world. Adam is a serial entrepreneur, and his ears perk up when he hears about a neat idea he can help get to market. We continued to talk.

RMS: How did you two find yourselves in Colorado?

Preston: Adam had landed in Colorado when his van broke down during a trip to California; he decided to stay in Durango. I moved to Colorado in 2009 after graduating from law school, I accepted a job in Colorado, the greatest place to work if you love the outdoors.

RMS: Describe the basis for the company's name.

Preston: Well, we wanted to keep true to our personal interests and experience. We love river trips, and feel it is important to 'go with the flow' in life. We both have a deep love for rivers as resources, having been kayaking all over the country and world. We also love good beer! Our company came about at the kitchen table. We wanted to own a good company and offer good beer.



RMS: What are aspects of being a 'good company' for you?

Preston: Besides producing and making available the highest quality beer, we want the company to be a good place to work and a good member of the community. We are giving at least 2 percent of profits to river organizations vetted for effectiveness of their work and that fit with Good River Beer's ethic. This year we supported the Colorado Water Trust and American Whitewater through beer donations. Also, Good River Beer staff support the South Platte River Cleanup after party and Gore Fest festival and are actually exceeding our 2% donation goal through leveraged relationships with restaurants and retailers. To manage our philanthropy we (the partners) started a non-profit organization called 2% for Rivers. This aspect of the business keeps us motivated!

RMS: When did you actually start Good River Beer, and how's business?

Preston: April 2015, and we started selling beer in September of that year. It has been a hell of a ride. The experience has been much like running a tough rapid: you look at the drop, pick a line, and rely on your confidence in yourself to go for it. We hit our stride the summer of 2016, and fast forward to today (late summer 2017), we will brew more during the next six weeks than we have year to date. With four beers in our core lineup, we are establishing ourselves in the Denver restaurant market, have started packaging in cans for two beers and have signed a lease on a taproom and brewery.

RMS: This is a plateful! Is there anything else on the horizon?

Preston: We hope to be statewide (Colorado) soon, and we will begin to offer Good River Beer in the Washington, DC market in early 2017. We are excited about and look forward to doing more for river conservation.

Many Rivers Brewing™

Grand Junction, Colorado
Tim Carlson, Chip Norton, Stacy Beough and Steve Ayers –
Partners

Chip, Steve, Tim, and Stacy represent over one hundred years of experience working on rivers from the perspectives of environmental engineering, non-profit organizational leadership, government agency partnership, and business development.

RMS: Please explain a bit about your unique business model.

Tim: Many Rivers Brewing is a for-profit company providing darn good beer at a mid-range price from here in Grand Junction. We are a Public Benefit – B Corporation, a business designation available in about half of the states in the U.S. The structure is such that no one receives compensation. The company leaders are volunteers committed to sending all profit to the good river work of non-profit organizations. I retired six years ago, and my retirement lasted only six months as this concept got started. I am the primary ‘staff’ person, and the other three partners are instrumental in terms of guidance.

The **Forever Our Rivers™ Foundation** is the distribution arm for the profit from Many Rivers Brewing LLC, and we look to collaborate with companies that have a corporate ethic in which rivers are important. Leadership for Forever Our Rivers consists of the four Many Rivers Brewing partners plus one other person, Margaret Bowman.

RMS: Where have you found input and guidance to help get the business planned and branded?

Tim: Several entities have been great resource partners. The Beverage Business Institute at Colorado State University has helped us with guidance and direction regarding distribution, legal issues, and marketing. We participate in quarterly workshops through which we hear from those with experience in the craft brewing industry. They help us connect with others in the industry.

Our beer attorney, who specializes in brewing law, has provided the most important guidance regarding good branding and marketing.

RMS: When did you get started?

Tim: About a year and a half ago (early 2016). We began by seeking a federal licensing trademark for beer and attending to the process of setting up a relationship with Edgewater Brewery in town to brew Many Rivers Brewing’s beer. We started brewing beer and selling beer in February 2017. We developed our beer recipes, and the brewers provide the magic.

RMS: Does any other company give all of its profits away?

Tim: As far as we know, only one other company gives away 100%. Finnegan’s is a company in Minneapolis that provides food to needy families. I have spoken to them about best business practices.

RMS: Are you making money yet, and are you able to pursue the company’s philanthropic mission at this point?

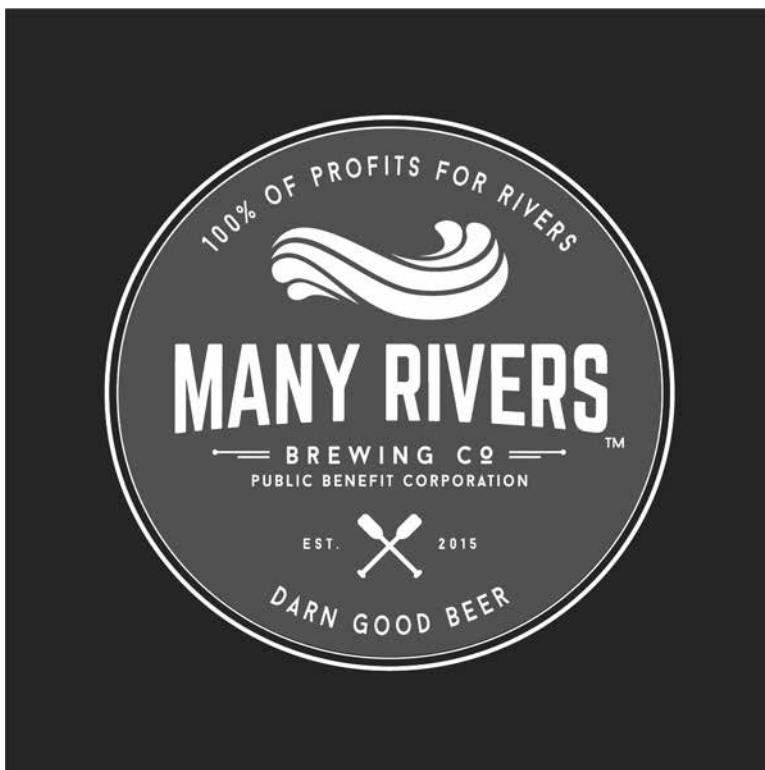
Tim: We’ve spent a long time insuring goals for the company are not compromised, so are a little behind, but we see profit within a couple of years. We are supporting organizations with donations of beer to organizations located in areas

we are distributed, and they then sell the beer to raise funds. In advance of seeing profit, we are offering beer to enhance the fundraising efforts of partners and non-profit organizations. We have given \$3,000-5,000 in product thus far to the Tamarisk Coalition, Colorado Riverfront Foundation, Audubon Society, Mesa Land Trust and a community radio station that supports local river efforts, KAFM.

RMS: Describe your general plan and vision for growing Many Rivers Brewing.

Tim: We plan to establish ourselves in Western Colorado to build up our reputation for great beer and operational reliability. We will expand to the Front Range by 2018 and beyond, depending on success. On the financial and philanthropic side, our goal is to contribute at least \$2,000,000 to Forever our Rivers.

RMS thanks Preston and Tim for the time they took to speak with us, and we wish them the best as they grow and prosper!♦



Last ride for Dinosaur's original 'weed warrior'

*Reprinted with permission from
Deseret News and Dave Cawley.*

Published July 16, 2017.



Ecologist Tamara Naumann rows a raft through Warm Springs rapid on the Yampa River in Dinosaur National Monument on June 20, 2017.

JENSEN, Uintah County —

A group of boaters stood on the banks of the Yampa River in far northwestern Colorado in June, scouting a course through Warm Springs Rapid. Frothing water churned over submerged boulders, surging downhill while also folding back on itself in a complex series of waves and eddies. The rafters were minutes away from braving the strong whitewater, the biggest and most dangerous of the Yampa, in a fleet of rubber rafts.

Ecologist Tamara Naumann sat alone on the sweep boat — the last raft in the flotilla — the phrase “Weed Warrior” emblazoned across its side in yellow lettering. The late June afternoon was warm but tolerable in the shade of a massive 1,700-foot cliff on the far bank of the river. One of Naumann’s co-workers at Dinosaur National Monument began barking out instructions to the other boaters, letting them know the order in which they’d run the rapid. All of this was familiar to Naumann. She’d floated Warm Springs countless times over the course of her career but was about to row it for the final time as an employee of the National Park Service. The moment was both exciting and bittersweet. Naumann will retire from the park service on Feb. 28, 2018, ending a 22-year effort to seek out and destroy invasive plants within Dinosaur’s 329 square miles.

“Part of my work here is focused on the river ecosystem and its health and function,” she said a day later while taking a lunch break downstream at Mitten Park on the Green River. “That’s everything from the fish in the water to the vegetation on the shoreline and the species that depend on that vegetation.” When Naumann joined Dinosaur, the river channels looked much different than they do now in 2017. The banks of the Green and Yampa rivers were then completely choked with an invasive plant called tamarisk. “It’s an Asian species. (It) hopped over here, started really becoming a problem here in the arid Western states in the 1950s and ‘60s, and in the decades after that really exploded,” Naumann said. “It was so aggressive that it really pushed out a lot of native species that the native wildlife depends on.” Though an intruder, tamarisk is very well-adapted to the harsh growing conditions of Utah and western Colorado. It’s mostly found along rivers and streams where it hogs any available water, competing with native plants for the

precious resource. The Utah State University Extension notes tamarisk plants have deep and wide roots that can spread into waterways, slowing fast-moving currents. The more placid water then deposits more sediment, and that in turn impacts aquatic creatures. Dinosaur’s rivers are home to four endangered fish species: Colorado pikeminnow, razorback sucker, humpback chub and bonytail. Tamarisk leaves evaporate more moisture than those of native plants, leaving riparian areas drier than before. Impenetrable thickets on riverbanks can also keep large, thirsty mammals like bighorn sheep from reaching water. For boaters across the West, tamarisk turned into a nightmare during the late 1900s. Beaches and campsites disappeared, overrun by the weed.

“Anybody who boats on other Western rivers knows that when you get to camp, you sit in camp, and you can’t see the river because the tamarisk is in your view,” Naumann said. Early in her career, Naumann made it her mission to fight the invasion inside Dinosaur. It was a huge task, given the 105 miles of river corridor contained within the monument. “In the early years, people would float by and say, ‘Hey, you’re wasting my tax dollars. You’re emptying the ocean with a thimble. That’s the stupidest thing I’ve ever seen,’” she said. “I thought, ‘At least I’m not sitting on the couch. I’m trying to make it better.’”

Over time, Naumann’s determination started to draw a more positive form of attention. Private boaters stepped forward, asking how they could help. Naumann recognized funding and manpower limitations would prevent her from ever succeeding if she relied only on government resources. She recruited the curious boaters to the cause. All along, volunteers have had to pay their own way, donating their free time to work under conditions many people would hesitate to endure, even for a paycheck. “I’m always surprised by how generously these people give their time,” Naumann said. “They show up with their own boats, and they bring their own food, and they’ll work a 10- or 11-hour day in 100-degree heat in the mosquitoes. And they come back the next year and do the same, which is quite astonishing.”

The reward for the weed warriors is the chance to experience two of the nation’s most scenic river canyons. Every year,

thousands of people enter a lottery in the hopes of securing permits to run the gorge of the lower Yampa, as well as the Green River's Lodore Canyon, Whirlpool Canyon and Split Mountain. Running the rivers during the spring and summer seasons, when flows are high and weather warm, remains a relatively rare privilege. Dan Johnson, Dinosaur's chief of interpretation, said roughly 7,000 people applied for 300 available multiday trip launches this year during the monument's high-use season.

Naumann estimates nearly 7,000 volunteers have traveled the rivers with her over the past 22 years. "When I counted them up at the end of last season, I think I was at about 6,685," she said. "When you have a place this beautiful to offer as a place for volunteer service, it's easy to recruit. Because who doesn't want to make something like this healthier and better?" The Colorado-based group Friends of the Yampa has formed the core of the volunteer effort for much of that time. "Actually, we have more people that want to come on these trips than there's places," longtime volunteer Ben Beall said. "Some people wanted to come and they've been here a couple times, but maybe they weren't regulars so (we) just didn't have places for them." Beall's been at it for so many years that he's seen the work become multigenerational. Many of the early weed warriors brought their kids on the river. Those children have since grown into adults, only to return with their own families to continue volunteering. One of Beall's own sons even worked with Naumann for a time as a river ranger at Dinosaur.

The labor is not easy. Tamarisk is a resilient plant, resistant to drought, burning and flooding. Its tangle of roots must be dug out of the rock and sand. The volunteers have had to prioritize their efforts. "In the river camps, we have used volunteers exclusively because our endgame is a completely clean sandy beach, possibly, or a place where you can't tell that we did the work afterward," Naumann said. "We don't want dead stumps, and we don't want dead bushes. We just want the tamarisk to be gone. So we dig them out or pull them out."

In other areas where ground is more rocky or difficult to work by hand, the teams have used herbicide. Biological controls are also at work in Dinosaur. In 2006, biologists intentionally introduced an Asian leaf beetle species to the river corridors. The bugs eat tamarisk, leaving the plants weakened and less capable of competing with native species. "Sometimes when we take out the tamarisk, in a couple years the willows are coming back, and where we cleaned out a beach for a lunch beach or a campground, it's filled up with willows. But that's natural," Beall said. Still, he's realistic about the prospect of ever eliminating the invasive



Tamarisk, an invasive plant infesting rivers across the West, grows on the banks of the Green River in Dinosaur National Monument.

plants entirely. "We're not going to get rid of these noxious weeds or the things that are introduced, but you have to learn how to manage it," Beall said.

Naumann's impending retirement leaves the future of that effort in question. When she speaks about the rivers, her words come out slow and thoughtful. Her eyes, shaded by sunglasses, scan the landscape. "I think the tamarisk is something we don't need

to worry about as much now as we did 22 years ago, so that feels good," she said. On her final work trip down the rivers in June, Naumann and her weed warriors focused on clearing a spot near the mouth of Whirlpool Canyon. On repeat visits, they've cut out a beach from what was before a thick wall of tamarisk just upstream of the Utah-Colorado border. The work will never be done, but it's as close as she intends to get. "My goal is to finish what I started, and it's not up to me what happens next.

I'm sure other young people with different ideas will come along and have some new inspiring thing," Naumann said. "In some ways, it will be good to have fresh eyes looking at what the most important problems are."

Dinosaur has no shortage of problems left to tackle. A new invader is making its way into the monument from upstream on the Yampa. Leafy spurge is a flowering weed with a caustic sap capable of causing skin irritation. Like tamarisk, leafy spurge will require much time and effort to remove. Volunteers like Beall hope someone else within the park service will pick up the baton. "We're hoping it's not an end of an era," he said. "Friends of the Yampa is looking at kind of like taking over some of the work. ... I think it will carry on."◆



RMS Journal

Care to share? Submission deadlines:

Winter 2017	Vol. 30, No. 4	Northwest	Oct 1
Spring 2018	Vol. 31, No. 1	Northeast	Jan 1
Summer 2018	Vol. 31, No. 2	<i>Special Focus</i>	Apr 1
Fall 2018	Vol. 31, No. 3	Pacific	Jul 1
Winter 2018	Vol. 31, No. 4	Alaska	Oct 1
Spring 2019	Vol. 32, No. 1	Southeast	Jan 1
Summer 2019	Vol. 32, No. 2	Midwest	Apr 1
Fall 2019	Vol. 32, No. 3	Southwest	Jul 1
Winter 2019	Vol. 32, No. 4	Northwest	Oct 1

Leave No Trace Principle:
Dispose of waste properly.

