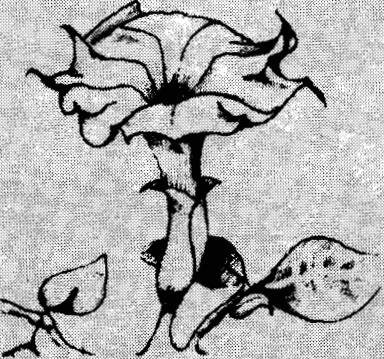
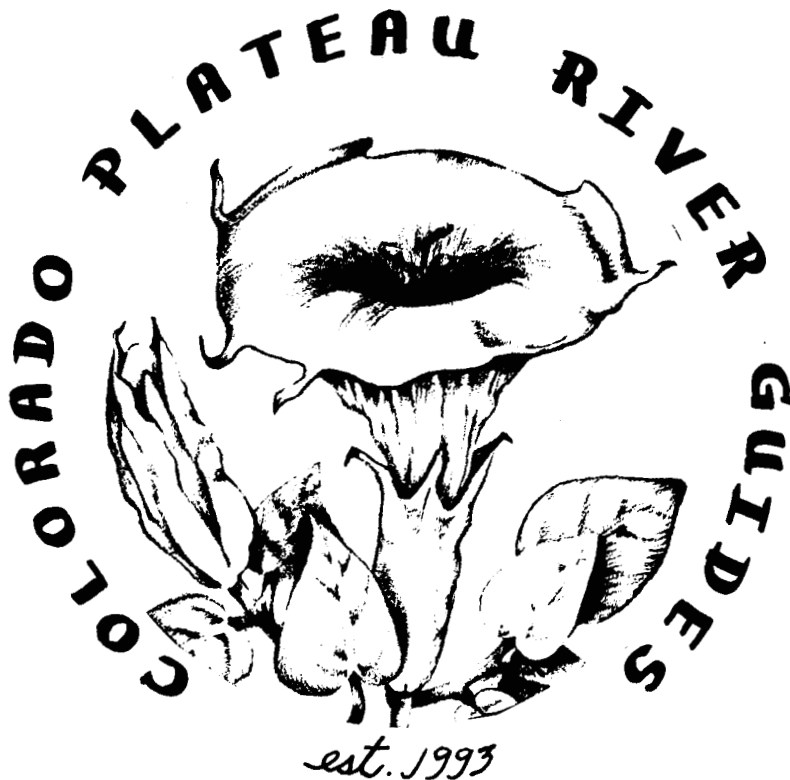


# THE CONFLUENCE

The Journal of Colorado Plateau River Guides  
Volume 2, Number 1 Winter 1995

	<p>I Can Fix That!</p> <p>Where the Hell Am I?</p> <p>A Fish Out of Water</p> <p>Fitz-Bew</p> <p>Lecture Series</p>	<p>R.I.P. Denis Julien</p> <p>The Prez Says</p> <p>Whiskers</p> <p>Quartzite</p> <p>Atlas DEIS</p> <p>SOWA</p>
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This is one of the several drawings provided by Anne Carter for the official CPRG logo, which will grace the issues of THE CONFLUENCE, our stationary and decals.

## The Confluence

...is the quarterly journal of Colorado Plateau River Guides.

Colorado Plateau River Guides is a non-profit organization dedicated to:

- \* Protecting the rivers of the Colorado Plateau.
- \* Setting the highest standards for the river profession.
- \* Providing the best possible river experience.

Guide Membership is open to anyone who has worked in the river industry.

General Membership is open to everybody.

### Membership dues:

\$20 per year.  
\$100 for 6 years.  
\$195 for life.  
\$295 Benefactor.

General Meetings and Board of Directors Meetings will be announced.

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Vice President	Tim Thomas
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Colorado Plateau River Guides  
P.O. Box 344  
Moab, UT 84532-0344  
(801) 259-8077

We need articles, artwork, poetry, stories, and opinions. If you use a computer, please send text for an IBM PC with WP 5.1 on a 5 1/4" floppy.

ISSN # 1078-425X

## Disclaimer

The opinions and statements made within the pages of The Confluence are those of the author and do not necessarily represent the position of the guide membership, the board of Colorado Plateau River Guides, nor Canyon Country Volunteers. If you have an opposing viewpoint please send your comments to:

Editor, CPRG  
P.O. Box 344  
Moab, Ut 84532

### Special Thanks to:

Bego for a six year membership.  
Earle Spamer for a Lifetime membership.  
Mary Richards for a Lifetime membership.  
Teva Sports Sandals for a Benefactor Membership

Also, to Jose Tejada for contributing his \$100 prize money from Comical American Road Stories (CARS) for the funniest story of the month contest. CARS attended our Spring Meeting to record boatman tales.

### Suggestion:

If you move, be sure to send us a notification of address change.

### New CPRG Membership Discount

Shrewsbury Photography (Westlight) offers a discount to CPRG members. The address is 750 South Main, Moab, Ut 84532 (801) 259-7943.

### Centerfold Special

Useful rope tricks for river rescue decorate the centerfold of this issue. This document would have been a lot easier if we had a Windows program, desk-top publishing software, a scanner and a laser printer. This is our most urgent growth problem -- computer upgrades. We wish to extend our appreciation to Dave Lyle for the use of his computer and laser printer needed to squeeze all of the text into four pages. We feel this issue is valuable to the guiding community and have printed extra copies to initiate a CPRG membership campaign. If you know anyone who would enjoy a copy of this issue, please send the enclosed form on the back cover.

### SPRING MEETING

We will be holding this years meeting on April 23. For those of you who want to meet for breakfast we will be at Fat City Smoke House at 9:00 a.m. Following breakfast at approximately 10:00 a.m. we will determine a business meeting location depending on weather conditions.

THE PREZ SAYS  
by Susette Decoster-Weisheit

Here in Moab, the new year has brought plenty of sunshine, a smidgen of snow, some rain and many a worried guide checking the Colorado and Wyoming snowpack statistics. The statistics for February are looking well; however, under these 70 degree skies, I can't help but think of last years low and wonder if we'll have enough water to float.

In business news, I am glad to say that CPRG memberships and renewals are still arriving and we have taken a big step in our potential growth. After much discussion and the transferring of book work, CPRG is nestled under the Non-profit 501 (c) (3) umbrella of Canyonlands Natural History Association (CNHA) -- an umbrella called Canyon Country Volunteers (CCV). This partnership allows CPRG to write and accept grants with a tax exempt status. CNHA acts as the non-profit "clearing house" for this money. There are many advantages to this partnership including: bulk mailing, accounting, computer use and assistance, cost printing, etc. Why would CNHA do this for us? It is the goal of CNHA to assist in the growth of smaller organizations who will in turn positively affect CNHA's mission statement.

During the CPRG Fall Meeting, members questioned the possible limitations CPRG might encounter with this partnership. The following is an example of one concern: What if CPRG opposed an issue or regulation enforced by an agency of which CNHA is supportive? CPRG can oppose, write articles and give written and/or public comment regarding such issues. However, if CPRG wishes to take legal action or support legal action against such an agency, CPRG and CNHA would have to dissolve their partnership. As the partnership could be absolved in approximately three working days, such an action would not impact our effectiveness on the issue or regulation. In January, I held a meeting to discuss this and any other possible conflicts with CNHA's executive director, Jeanne Treadway. We agreed that if a conflict did arise, either a resolve would be reached with the Board Members of each organization, or the partnership could be dissolved on the request of either organization.

In February, a quorum of the CPRG Board of Directors met to discuss the outcome of my meeting with CNHA. Taking into consideration our mission statement and the mission statement of CNHA, it was decided that we would continue with the original plan and join CCV under the CNHA umbrella. I am confident that any question regarding this joining have been dealt with satisfactorily and that CPRG can look forward to a long partnership with CNHA and its staff. If you are interested in grant writing or if you have any questions please feel free to write me at CPRG.

As I sit through my first aid course I find myself anxious to be back on the river -- outdoors. From letters and conversations with the boating community, it is apparent that our season is fast approaching. So grab your straps, ropes and personal gear and get ready, the first trip is not far off. If I don't see you at the spring meeting next month, here's to a safe season on the water.

Letter

March 9, 1995

Honorable Earl Carroll  
230 N. 15th Avenue, 6th Fl.  
Phoenix, AZ, 85025

Dear Judge Carroll,

This letter is in response to the case you are presiding over concerning the individuals responsible for the destruction of Quartzite Falls on the Salt River. I'm contacting you as an individual to express my personal opinion on this wanton act of vandalism and disrespect. I feel qualified to comment on this matter as I've run rivers for over fifteen years both privately and commercially, I'm currently employed as a River Program Coordinator, and I'm an active officer in a non-profit river guides organization with hundreds of members.

The crime which was committed occurred in an area which was Federally protected under the Wilderness Protection Act in 1984 for its unique wilderness qualities. I feel the severity of the punishment should merit equally special consideration. The defendants in this case, primarily Mr. Stoner and Mr. Scott, systematically and deliberately altered the physical, biological, and aesthetic character of not just one particular location, but that of an entire section of river over sixty miles long. Regardless of their intent in pursuing such an act, the fact remains that what they did is illegal, permanent and occurred in an area specifically designated to preserve the character of the river in its natural state.

Defense was given that the destruction of Quartzite Falls was done with others safety in mind. Please consider that the Salt River was previously recognized as a Class VI river (requiring mandatory portaging) because of Quartzite Falls. With the falls gone, less experienced boaters may be lured into believing a Class VI river no longer holds whitewater safety risks. Additionally, this action has opened up the river corridor to new management problems with an ever increasing public and private interest in wilderness river trips, evidenced by a new regulatory permit system on the river. If safety was the issue, why choose permanent destruction over construction? Why didn't the defendants better sign the danger or make more efficient or safe passage around the falls? Most likely because their true intent was not in removing a danger, but an obstacle.

Areas such as the Salt River wilderness are unique and irreplaceable. It would be a dangerous precedent to not prosecute the main offenders to the full extent of the law. A first offense for the defendants is a last offense on the river when such thorough and deliberate vandalism occurs. I would encourage you Judge Carroll to make the punishment fit the crime and at least not allow the prime offenders to take away so much, and in return pay so little.

Sincerely, Tim Thomas

## A FISH OUT OF WATER IS . . . NOT A FISH

*Proposal to Modify Operation of McPhee Reservoir and Acquire Additional Water for Fish and Wildlife Purposes.*

By Tom Rice

The Bureau of Reclamation (BuRec) proposes to modify McPhee Dam release in order to provide an adequate volume of cold water to conserve one of Colorado's top four cold water fisheries created when McPhee Dam banged it's gates shut. The area in question is between the dam and a point twelve miles down river near Bradfield bridge.

The proposed action is being considered because in low water years, such as in 1990, minimal release flows degraded the fish habitat. These minimal flows are released before and after the peak spring runoff. If you are familiar with the Dolores River, "natural" runoff patterns occur for about three to six weeks in May and June. After that point, year round regulated flows have ranged from 78 cubic feet per second (cfs) during wet years, 50 cfs for normal years and 20 cfs during a dry year.

The regulated water release criteria was based on a study of monthly river flows from 1928 to 1973. However, there was a discrepancy in the manner which these monthly flows were analyzed by BuRec. This allowed for flows of 20 cfs to trickle down the river during winter and spring months which provided for inadequate fish and wildlife habitat.

The 20 cfs flow of 1990 caused a significant decline in the number of trout living in the twelve mile section of the river. Organizations such as Trout Unlimited and the Colorado Division of Wildlife pointed out that low flows damaged an established trout fishery. The organizations established that a new plan had to be formalized. Meetings between BuRec and environmental organizations achieved increases in flows to minimize impacts on the trout population. Low end releases during dry years were raised to 31 cfs allowing a bit more of a suitable flow. High end wet year flows continue to be 78 cfs. These releases currently operate on a monthly extension until an operating plan is finalized.

After almost five years of biological assessments, coordination by water users, environmental organizations, Colorado Division of Wildlife, U.S. Fish and Wildlife, Bureau of Land Management, and a host of others, an Environmental Assessment (EA) has been issued.

The draft environmental assessment has four alternatives. Alternative I, which the BuRec wants, proposes to modify reservoir release patterns. A team of biologists would direct the use of the McPhee reservoir pool specifying fluctuating releases for conservation of the downstream trout fishery. In addition, BuRec hopes to acquire an additional 7,200 acre feet (af) of water for release. This addition would be a healthy bump for the fishery.

Now it gets complicated. Alternative I calls for an additional 7,200 af of release; 3,900 af would be acquired directly by BuRec leaving 3,300 af to be acquired from donations, grants, cost sharing with other governmental agencies, private entities, water/irrigation districts, or better yet, a work of God on a Blue Moon.

The interesting problem which arises here is not addressed in the EA. Where will the water come from? Water in irrigated hay farming southwestern Colorado isn't acquired quickly and cheaply. Acquiring the water is a difficult task. Municipal water could be purchased outright from Cortez, Colorado. However, how will the city quench a thirsty growth? Regardless of that fact, this route may be the most viable. Dove Creek, Colorado, also has excess water. They fought long and hard for their water; thus, they will probably not sell. The Dolores Water Conservancy District could practice some innovative water conservation tactics such as lining their ditches. This would limit water loss and provide water which could be put back into the system to satisfy the fishery needs. Irrigators could be approached for the water acquisition. However, they would have to be in dire straits to sell any of their water considering the land they farm and the economics of water in this part of Colorado. Needless to say, water acquisition is, if not bleak, very challenging.

Another drawback to Alternative I is that during dry years, the impact of the drought would be shared with other water users such as local irrigators, thus diminishing suitable flows to the trout fishery. In other words, less water would be released for fish in order to satiate irrigation needs. Such practices could place the flows back to the point which caused the habitat concerns in the beginning.

Alternative II is almost identical to Alternative I except it does not share water shortages with other water users during dry years. This means that during a dry year the fishery receives sustainable flows. This would be the most biologically and ecologically sound alternative. However, it does not sit well with traditional water users, irrigating companies or with Reclamation's mandate. No one expects them to take it sitting down. Therefore, make them stand up. Public comment may help or hinder their alternative.

Alternative III would only acquire an additional 3,900 af and dismiss any attempt to acquire the additional 3,300 af. This alternative does little to advance the trout fishery. Furthermore, it would share water shortages with other water projects users offering the fish habitat less water in what would already be a slim water year.

The final alternative, Alternative IV, is the no action alternative. This plan would release water based on the operation of the dam when the gates were closed in 1983. Such a plan would put low end flows at 20 cfs possibly creating inadequate flows for proper fish habitat. This alternative negates the current month-to-month arrangement already in use.

continued on page 18, Column 2

## The Denis Julien Inscriptions

by James Knipmeyer

Note: Edited from a full length article that will appear in the Utah Historical Quarterly.

### Introduction

To the student of Western Americana, the name Denis Julien may not be known, but to devotees of Utah history, especially river runners, his name is very familiar. What is noteworthy about Julien was his inclination to carve name, initials, and/or dates into rocks and canyon walls.

In Utah, there are at least eight known inscriptions attributed to Julien. An additional two, reliably reported, have never been fully documented for the general public. There are another seven signatures that have some connection with Julien, but hover in speculation and debate.

Of the ten writings largely accredited to Julien, two are not fully accepted by discriminating historians.

### The Inscriptions

Ute Indian oral traditions from the Uinta Basin area of Utah claim that in 1828 four men, including Julien, established a small trading post near the junction of the Whiterocks and Uinta rivers. Lending support to this story is the location of the earliest known Julien inscription which reads, "Denis Julien 1831."

This inscription was first noted by Dr. Julian H. Steward in 1931 when he attended the annual Sun Dance of the Ute Indians. A few days later he showed it to Charles Kelly, who recognized the name and its implications. It was Kelly who first contacted the Missouri Historical Society and accumulated the early life of Denis Julien.

The incised inscription is printed in individual capital-style letters. For the last name, only the "J" is capitalized, and the "en" is in fashioned in script, a typical Julien signature.

In chronological order, the next inscription dated 1832, is the least known, and has not been seen in recent times. Grove K. Gilbert, a geologist, recorded the inscription in his 1875 field notebook; the entry reads, "D Julien 10 Mai 1832." Charles B. Hunt, who edited Gilbert's work for a publication of the Geological Society of America, had no explanation for this particular entry. However, Steven Reneau of Los Alamos, New Mexico, read the publication and connected a memory from a raft trip he completed in 1975 down the Green River in Labyrinth Canyon.

Reneau contacted Hunt to share his conclusions, who then phoned Gary Topping of the Utah Historical Society, who then wrote to me, thus completing the chain of events. Hunt narrowed down the probable location of this inscription to a mile stretch within Ivie Creek Canyon, where a search proved unsuccessful. Later, searches by Topping and myself too were unsuccessful, but a good campsite was located where inscriptions dating back to 1875 were found. If the Julien inscription was included here, it has since been eroded away and remains a mystery. Gilbert's original entry renders the inscription as: "D Eulien." This was obviously a mis-reading of the old-style block-letter French "J," which is written "I."

The most often seen Julien inscription is located near the mouth of Hell Roaring Canyon. This inscription reads, "D. Julien 3 Mai 1836." It is accompanied with a cutting of a boat with a mast, and by what is described as a flying sun or bird.

D. Julien  
1836  
3 mai

Hell Roaring Canyon inscription.

In 1893, the steamboat MAJOR POWELL made a trial voyage from Green River, Utah, to Spanish Bottom and back. William H. Edwards, captain of the steamer, was the first person to report this finding to the public. There are two particular characteristics to be noted in the Hell Roaring inscription. One, the capital letter "J" is carved in the old-style block letter, looking like a combination of "I" and "E" [ I ]. The letters "j,u,l," and "i" are incised separately, while the "e" and "n" are joined together in script.

Thirteen days later, Julien carved his next inscription upstream of Hell Roaring which reads, "D. Julien 16 Mai 1836." For this inscription, the "J" has a modern appearance and the "j, u, l," and "i" are printed, while the "e" and the "n" are in script. Charles Kelly corresponded

D. Julien 16 Mai 1836

The Julien inscription on the Green River, Labyrinth Canyon, near Hey Joe Canyon.

with river historian Frederick Dellenbaugh, who indicated that this inscription was found by prospectors, probably between 1893 and 1895. In March of 1895, William Edwards was interviewed by the ROCKY MOUNTAIN NEWS, and reported that there were a total of three Julien inscriptions on the lower Green River.

This third inscription has probably not been seen in this century. Its exact wording is not known, and its supposed location has been the subject of much debate. In a letter written to river historian Robert B. Stanton in 1907, William Edwards stated that the location of this inscription was four to five miles above The Confluence. In a letter written to Charles Kelly, Dellenbaugh indicated that this inscription read, "D. Julien 1836." Recent searches for this inscription, on both sides of the river, have not been successful. The next Julien inscription is one for which the authenticity is debated. Located just above the rapids of Cataract Canyon, the faint inscription reads, "Denis Ju\_\_\_ 1836." In Dellenbaugh's book A Canyon Voyage, the first mention of this inscription is made. River runner Harry L. Aleson also saw it in 1951. One of the reasons this inscription is questioned by historians is that the name is entirely done in script and that it is not deeply incised, a Julien trademark. One might argue that Julien was in a hurry.

The next inscription was the first to be discovered, by Robert B. Stanton during a railroad survey in 1889. It read simply, "D. Julien 1836. Evidently, it was seen only twice after that time, in 1891 during the Best Expedition and in 1921 during the USGS Expedition. It was not subsequently relocated and photographed until April 3, 1964 by Otis Marston and Bill Belknap. This inscription was located on the east bank of the Colorado River at the mouth of Cove Canyon and is now under the waters of Lake Powell in lower Cataract Canyon. The photograph shows the old-fashioned "I" for the capital "J," and the ending "en" is done in script. As Stanton conducted his trip in high water, the inscription was incised without a perch, so Stanton theorized that it was carved from a boat. However, when Marston relocated the inscription on his trip (pre-snow melt), a sandbar turned up with an adequate campsite and perch.

Two of the remaining Julien inscriptions are all located higher up in the Green River drainage. One, in Desolation Canyon, has been cut into the face of a large boulder near the mouth of Chandler Canyon. It was first described to Otis Marston in a 1967 letter from George E. Stewart of Roosevelt, Utah. This inscription has no date and consists only of the initials, "D.J." It has been attributed to Julien because of the similarities found in the writing style: i.e., the "J" is inscribed in the old-style "I."

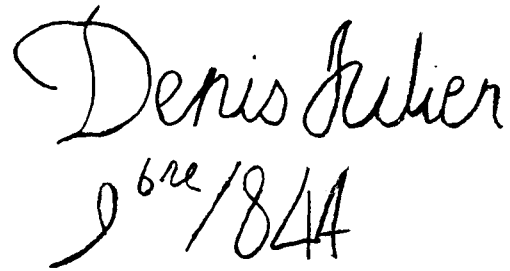
The highest upstream inscription to be found is in Whirlpool Canyon of the Green River, just a couple miles below Echo Park in Dinosaur National Monument. Presently, it is completely screened by the exotic plant tamarisk, but the alcove site made for a pleasant campsite prior to tamarisk invasion. The discovery was first noted by a

# DI

## The Chandler Canyon inscription.

worker on the proposed Echo Park Dam in the 1950s, but it was not until 1975 that two National Park Service employees, Glade Ross and Steve Petersburg, found the marking by utilizing the worker's field notes. The inscriptions consist of the initials "D J," and about two feet away -- the date "1838." Once again, the "J" is carved in the old-fashioned manner, "I."

Chronologically, the last Julien inscription is located in the Devil's Garden section of Arches National Park. This inscription gives the full name "Denis Julien" and a date reading "9 6re 1844."

A handwritten inscription in cursive script. The top line reads "Denis Julien" and the bottom line reads "9 6re / 1844".

## The inscription in Arches N.P.

It was seen and reported by then Park Service employee Jim Stiles in July of 1977. This is a hotly debated inscription because it is not in close proximity to a river and is styled in script. Some think this inscription is a modern fake, but comparing shades of desert varnish on other nearby etchings leads one to conclude it is authentic.

## Other Possible Inscriptions

In 1938, a party sponsored by Julius F. Stone and Dr. Russell G. Frazier descended Glen Canyon by boat with five other men, including Charles Kelly. At the mouth of Lake Canyon a possible French inscription was discovered by the group. The carving read, "Ian ce. 1837 V. Lay." The first word appears to be an abbreviation for January, connotating Julien's use of the "I" for "J." The "V. Lay" is possibly a person's name. The French appearance and the date are all that possibly associate this inscription with Julien.



Lute Johnson, a newspaper man who was a member of the 1893 voyage with William Edwards, reported a Julien inscription located on Foote Bottom, a few miles below the junction of the Green and San Rafael rivers. This inscription supposedly read, "De Julien 5 Mai 1836." There are several problems associated with this inscription. First, Foote Bottom is known today as Tidwell Bottom and is 45 miles below the mouth of the San Rafael River. Secondly, no other crew member of the MAJOR POWELL mentions this inscription. Third, another published author searched Tidwell Bottom for the inscription without success. Lute Johnson probably confused this Julien inscription with the one dated "3 Mai" at Hell Roaring Canyon.

Another Julien inscription was supposedly located at the mouth of Dark Canyon, and was looked for by the previously mentioned Stone/Frazier Expedition of 1938. No such inscription was ever found here and was likely confused with the Cove Canyon locality. However, Royce "Cap" Mowrey of Vernal, Utah, said in 1948, that he saw a D. Julien inscription at the mouth of Dark Canyon. As this locality is now flooded by Lake Powell, we may never solve this mysterious Julien inscription.

Captain Harry T. Yokey reportedly told a fellow-townsmen of Green River, Bert J. Silliman of Nequoa Oil Company, that there was a Julien inscription on the east side a few miles below the mouth of the San Rafael River. Stories conflict about this location, one including that the location is actually three miles below the mouth of Ten Mile Wash. P.T. Reilly searched for this inscription in 1961 to no avail. Conclusions have since been drawn that Yokey confused this inscription with the "16 Mai" locality above Bowknot Bend. Yet another possible inscription was reported by Yokey at the mouth of Spring Canyon, a locality too where Reilly failed to find anything.

The last two "possible" Julien inscriptions were found by Clair Bird of Fruita, Utah (Capitol Reef Lodge), sometime around 1952. One was in Silver Falls Canyon, a tributary of the Escalante River, and another at the so-called "Moqui Fort," below the mouth of White Canyon. Close examination of the inscriptions in Silver Falls Canyon revealed that it was not Julien's. The White Canyon inscription was very lightly incised. The White Canyon stone was removed by Otis Marston before inundation of Lake Powell in 1967 and was curated at the John Wesley Powell Museum in Page, Arizona. It was noted that the "J" was done dissimilar to other Julien inscriptions. That it was a fake was virtually confirmed by the spelling of Julien with an "a" rather than an "e." The inscription completely faded within a year after this analysis.

### Conclusion

What happened to Denis Julien after his last recorded inscription dated in 1844 at Arches? In 1976, Otis Marston was interviewed by John Hoffman and the Utah State Historical Society. Hoffman made a comment that newspaperman Lute Johnson reported Julien became a California pioneer, died, and was buried there. However, Hoffman went on to say that he was unable to find documentation about Julien ever being in California.

So, where and when Julien was born and where and when he died, are not known. It is hoped that somewhere, somebody carved for him a suitable inscription. "R.I.P. D. Julien."

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### QUARTZITE FALLS, BUT DO THE CULPRITS?

The letter on page 3 to Judge Carroll, the sentencing judge in the Quartzite Falls demolition case, expresses my personal views on the case and the defendants actions. My thanks to Shane Murphy, G.C.R.G.'s Prez, for his eloquent words on the topic. It spurred me to similar action. Perhaps one small benefit of the destruction of Quartzite Falls will be to gather consensus and take action to protect the rivers we love both individually and as collective members of a professional guides organization.

If this case needs any introduction at all, here's a brief synopsis: William Stoner (leader), Rich Scott (demo expert), and six other men from the Phoenix area made five trips in 1993 to Quartzite Falls in the Salt River Wilderness Area and dynamited the falls. They now await final sentencing March 27th by Judge Carroll on charges of Conspiracy and Destruction of Federal Property. Plea bargaining is of course under way and it's doubtful the maximum penalty of \$250,000. each in fines, and 25 years in prison will be handed down. So there's my thoughts -- and yours?



Here is the new right side run of Quartzite Falls at 1000 cfs. Photo by Tim Thomas.

## A Citizens' Guide to Protect Utah Rivers

### THE NEXT FOUR PAGES

From the steep clear streams that drain the high alpine cirques of the Unita Mountains, to the lazy silt-creeks of the San Rafael Swell, Utah's rivers flow through a fantastic array of landscapes which support numerous wildlife species. yet, although more than 10,000 miles of rivers in the United States now enjoy Wild and Scenic River recognition, Utah is one of just 12 states that lack any permanent river protection.

Designation of Utah's remaining free-flowing rivers as wild and scenic is the most effective tool available to river conservationists. The Southern Utah Wilderness Alliance (SUWA) has just produced A Citizen's Proposal to Protect the Wild Rivers of Utah. The book, edited by Zach Frankel, highlights the wild streams in Utah which deserve congressionally designated Wild and Scenic River status. This guide describes the process whereby citizens can become advocates in wild and scenic river decision-making. To take your own direct action to protect a stream you love from incremental destruction for water development.

Contact: SUWA at 1471 South 1100 East, Salt Lake City, UT, 84105. Copies of the Citizen's Proposal are \$14.00 each.

"I can hardly wait for my next flip," said John Weisheit after reading the manuscript. "SHEESH," said I.

What it is: Two old men and a girl pumping fliplines. A review of some stuff out there. A partial outline that has evolved from 10 years of river rescue courses taught by the master, one Barry Miller. Cliff Notes for the 90's boating/risk/rescue scene. The stuff your company's insurance people want to see. It's theory/systems/process more than a step-by-step manual. It's an approach style. Stuff YOU ought to have in mind for any adventure travel.

It's dangerous out there so stack the odds in your favor. Accidents lead to regulations (boo, hiss) but more regulations will not prevent accidents. Get a brain, some tools and PRACTICE. RIP THIS OUT OF HERE AND PUT IT IN YOUR AMMO CAN. Pop quiz Friday. Study up.

Bego.



This photo was taken by Eugene LaRue in 1914 at The Confluence. We do not know who all these people are. We are sure that Bert Loper is second from left, top row. Albert I. Anderson (Anderson Bottom fame) should also be in this picture. Let us know if you recognize any of these folks. Photo courtesy of the USGS Library, Denver.



# RISK MANAGEMENT - is a full time job.

\*\* I can fix that. Let me get my tools. You can never answer all the questions. \*\*

RISK MANAGEMENT TRIANGLE - identify, evaluate and deal with risks.

PREPARATION - training, skills, experience and collective knowledge both as an individual and as a group, good equip.

PREVENTION - learn from experience, orientation talks, demos, altered states of consciousness, thinking ahead.

CRISIS MANAGEMENT - preplans, problem solving and decision making through an incident, debriefing.

INCIDENT COMMAND SYSTEM - National EMS and SAR people have designed the ICS as a management framework for the control of an incident. Even the most simple river rescue has all these parts:

PR	INCIDENT LEADER - person best able to see the big picture and make decisions. Not always the trip leader.		
PLAN	LOGISTICS	OPERATIONS	
We can fix that	1st boat..	Leadership	
	2nd boat..	skills, kit	
PREPLAN	-- CONTINUOUS ASSESSMENT THROUGHOUT --		
		DEBRIEF	FINANCE
TIME....	A few minutes, hours, days .....		



PREPLAN - At some very specific stages in the development of an adventure you, your crew, your company and your clients must go over the major what ifs, the risks and responsibilities, emergency procedures, each other's skill levels and lack thereof, expectations...many things, so that the next 6 items can happen smoothly if an incident happens.

PLAN - Developed at the instant of need, depends on where you are. Most likely: each boat in each eddy, those on shore, the swimmers and those on the flipped boat will have to develop their own plans, ready to change as the process unfolds. Shore based rescues better for smaller rivers. In flow rescues: downstream boat waits, up boat sweeps. Ideally: get together, assess, develop plans A and B, delegate jobs, communicate. Keep track of your lines of escape if your plan goes awry.

LOGISTICS - Getting the right people and stuff to the right place at the right times. Plan ahead to shorten this time.

OPERATIONS - Concentrated awareness: accuracy is more important than speed. Dynamic judgement: things can change fast.

DEBRIEF - Afterwards, go over the strong and weak points. Goes into the preplan and collective knowledge.

FINANCE - Some equipment got used/abused. Who pays? To an outfitter equipment wrecked because of lack of training is badly spent money. Maybe outfitters should spend more time and money on guide training?

PUBLIC RELATIONS - The explainer: On a commercial trip when an incident happens, someone on 'the staff' becomes the explainer to 'the group' about what's up, why and how to fix it. This is a delicate job - you are coordinating the group psyche. What is said and not said can be held against you.

PRIORITIES - A good, clean recovery takes a lot of skill and is just as satisfying as a good run.

SELF RESCUE - Go for the nearest safe/warm place and fix yourself first. Then you are ready to help others. Most hypothermia happens by lack of self-care. Your stamina will determine how much you can do so start out in good shape.

SAFETY OF OTHER RESCUERS - First, do no harm. Do not go from rescuer to victim in your zeal to be a hero.

PEOPLE FIRST, EQUIPMENT SECOND - Yup. Everybody counts heads, keep absolute track of swimmers.

YOUR FIRST DECISION - Your moment and extent of interaction must be evaluated. Don't jump to soon - hard to do with all that adrenaline. Maybe you should wait a bit to see what else develops, then jump in.

VARIABLES - Everything at first. Time of day. What are the objective dangers? Where is everybody and what condition are they in? How far and how long to external help? The outcome is very sensitive to the first things you do.

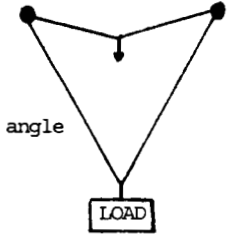
EMOTIONAL STUFF - When your train goes off the track, everybody gets pumped up in some direction. Each person and the group develops an emotional curve that must be attenuated accurately and soon. This is done with leadership and skill. The imagination, creativity and logic of a person under pressure can disappear. Too much anxiety WILL cause bad decisions.

ORIENTATION TALKS - The content and presentation of OT's is important in this litigious society. It's a Catch 22: The guide is supposed to explain risk to people who do not have enough experience to evaluate risk. OT's must meld three disparate mind-sets. The tour agency wants to paint a rosy picture so as not to lose the sale. The client does not know what is ahead (part of the attraction) but wants something safe and thrilling. The guides, with varying degrees of expertise, have to deal with the occasional situation that is neither rosy nor safe. Stuff happens! Tour companies are product orientated and so are the clients. When this orientation is put in a PROCESS setting (the outdoors), the product may not be delivered as advertised every time. Chance and luck are not under guide control. OT's are equally as important on private trips.

OT's must be carefully planned and delivered -- use a checklist. Foreign PAX will have a language problem. The adult has a SHORT attention span, especially in the excitement of the put-in environment. How do people learn? The client must learn a lot of new vocabulary, so the guide must not overload him with too much, too fast. Several OT's should be given at the appropriate times; do them in a logical order for what will happen next. Be concise. Invite questions. Have the whole crew participate. Be sure everyone is paying attention. Do your OT's away from distractions. Most important: you must convince your people that their safety is, in fact, mostly in their own hands and they must accept that responsibility!

**ROPE SYSTEMS - Use the Acronym SLACK:** Strength of materials - Lines of force - Anchors - Complexity and chaos - Knots  
**STRENGTH OF MATERIALS** - The tensile strength of rope and sling degrades rapidly in the boating environment due especially to sand, water and neglect (attitude). This can reduce a 4000 pound rope to less than 1000 pounds in a week. How strong is that favorite old boat rope of yours? Throw bag ropes should not be used for anything but throw bags. They are not bow lines, utility ropes or rescue ropes. Many types of rope out there - study up and use the correct type for the task.  
**LINES OF FORCE** - Vector analysis: Can change fast as in throwlines and when the boat comes loose. Can your anchors handle the change, who will be in the way?

**ANCHORS** - Points of attachment are the easiest place to have system failure. A note on equalizing: if you equalize 2 or more anchors and one of the anchors fails, you are shock loading a system NOT built to shock load. Consider pseudo-equalizing.

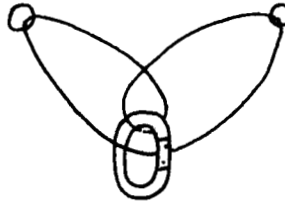


**2 POINT ANCHORS-**  
 Larger interior angles create larger loads on each anchor.

For a 1000 lb load:

Angle	Tension on each anchor
30	517 lbs good
120	1000 lbs bad
170	5700 lbs Vector pull

Equalizing 2 anchors so that the load line can change directions.

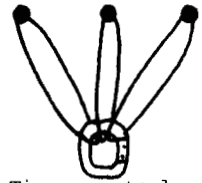


2 points with loop of rope or sling. Put a twist in one side before clipping biner.



Using a Bowline ON a Bight.

Pseudoequalizing is another choice but load line must not change direction.



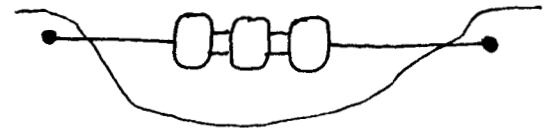
Tie separate loops from anchors as evenly as possible.

Harboring- tie boats up with hitches only



Shore anchors should be above high water line. Deadman or 'snow flukes work well in sand if you pour water on to dig area to compact sand.

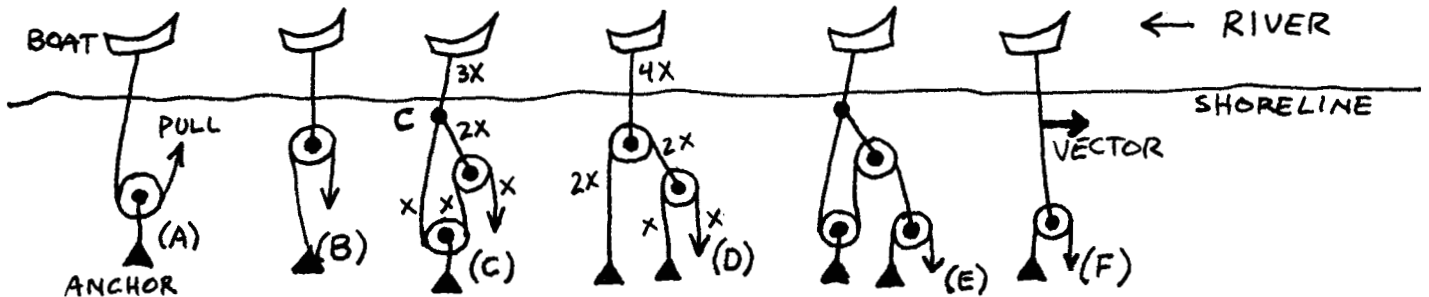
Boat anchors should be 7X the depth away from boat.



To 'soft tie' your fleet in an eddy put enough tension in the system to keep boats apart and afloat regardless of water level.

**COMPLEXITY AND CHAOS -**

Mechanical Advantage and Pulleys- can be applied in the horizontal or vertical

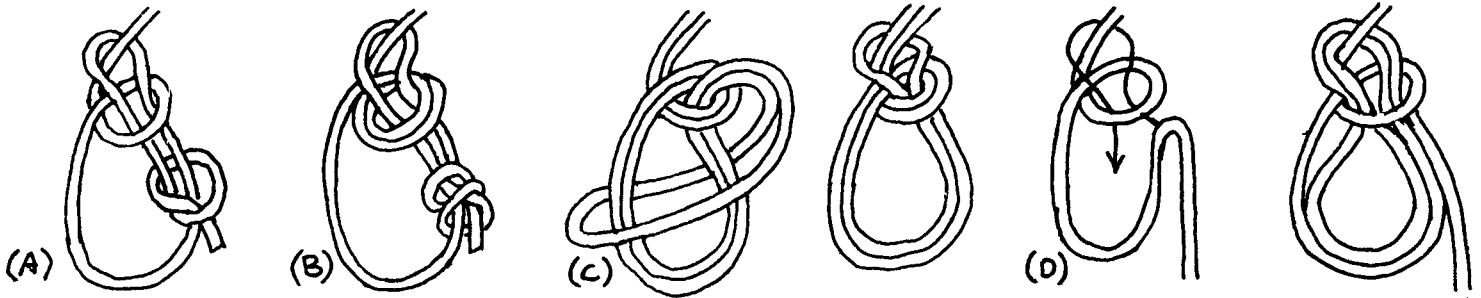


For a single pulley there are two choices: If the pulley is fixed it is only a direction change (A). If the pulley travels, it does work giving a 2:1 advantage (B). The famous Z-drag (C) gives 3:1 advantage. How to figure it: First, know that the sum of the forces on each side of each pulley must be zero. The pullers can input X pounds. The other side of the first pulley then has X pounds. The rope attached to the axle must then have 2X pounds on it. Do the next pulley. Add up the X's that act directly on the boat to get 3:1. If connection at C is a Prusik Knot it will slip at about 1800 pounds, a built-in circuit breaker you may want, so the rig will pull about 2700 pounds at best. A loop knot here will hold what? A mechanical device will hold what? (D) If you have 2 pulleys, make them both do work, getting 4:1. (E) Add a 2:1 to a Z-drag and get 6:1. That's a lot of force so are your materials strong enough? (F) The Vector Pull. Use mechanical advantage to get the highline taut. When you first pull on the Vector enormous forces are applied to the boat tie and the anchors, but these forces fall off rapidly the further you pull. Pullers should have one leg behind them in case something breaks and they should be placed 'outside' the system. **FRICITION** - You do want friction in belaying, rappelling, prusik knots, etc. You don't want friction in pulleys. Depending on the type of pulleys used, subtract 10 - 25% from the theoretical advantage for each pulley used. Roller bearing, 3" pulleys are a good choice.

**CHAOS** - Where is the weak link in the chain? No leadership, too many egos, no 'tools' and YOU are good places to look. 'I'll jump out of the way if something breaks' is not a valid concept.

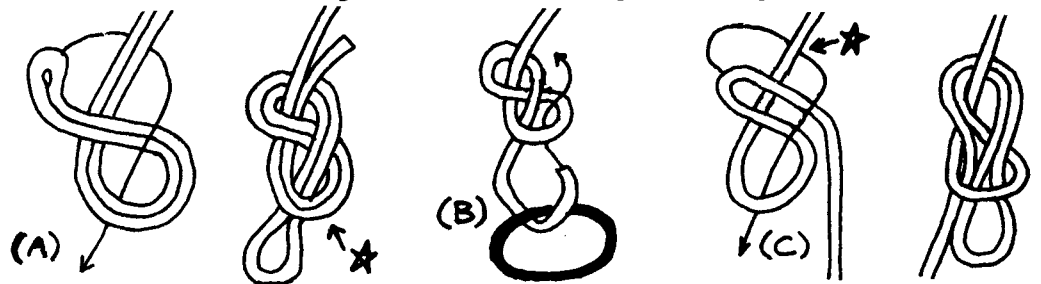
**KNOTS** - No practice, know not. Many knots have more than one name and/or application depending on the user group and/or the knot book author. There will be safety gained if all boaters have the same names for the same knots. The knots you use should be strong and secure. They should be easy to tie with cold hands and easy to untie after loading. Generally, for knots you should be using, subtract 1/3 from the tensile strength of the rope. Application is important: Boats should be tied up with hitches, not Bowlines, and litters should be tied up with Bowlines, not hitches. No knot is useful if it bobs in and out of the water all night. Load axis orientation is important: Many people tie a 'sideways Bowline' which is not a Bowline and the load axis is 90 degrees off. After casting a knot, it must be worked into shape and tightened. Neatness counts. Knowing the final shape of the intended knot is imperative. A knot is never nearly correct.

**BOWLINES** - Classic, strong, easy to untie after loading.

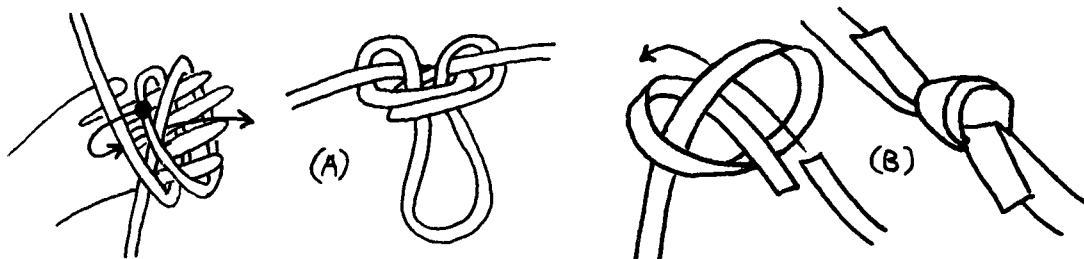


(A) Bowline with an Overhand safety knot which should be snug against the main knot. (B) Round turn Bowline with a Grapevine safety. This is more SECURE than (A) and is one of two ways to tie into a climbing harness. (C) Bowline ON a Bight, good for equalizing multi-point anchors. (D) Bowline WITH a Bight forms a mid-line, directional, double loop for Z-drags and trucker's hitch.

**FIGURE 8's** - Strong also but much harder to untie after loading. Some rescue books say to use only 8's, never Bowlines. Rubbish. Take your pick.

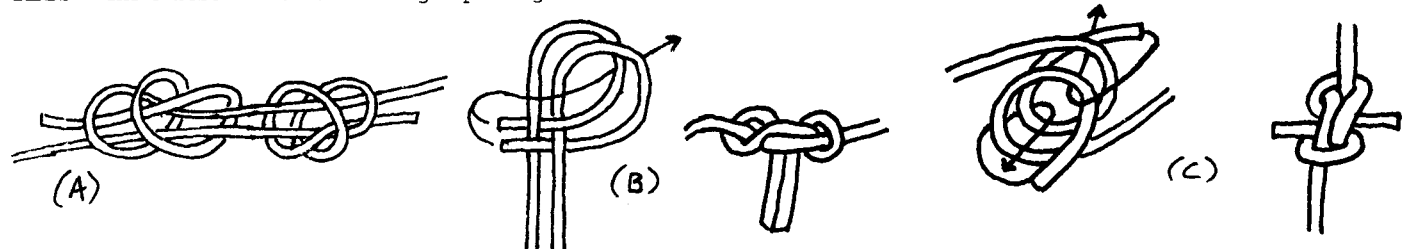


(A) Figure 8 loop - The load line should be on the outside of the first turn in the knot\*. (B) Figure 8 Retrace - the other way to tie into a climbing harness. Tie an 8 in the line with 30" of tail, put the tail through the harness and carefully weave the tail back through the 8. Then tie a Grapevine safety. (C) IN LINE 8 - Midline directional loop for Z-drags and trucker's hitch. To make it easier to untie, at \* take another turn or two around the standing part.



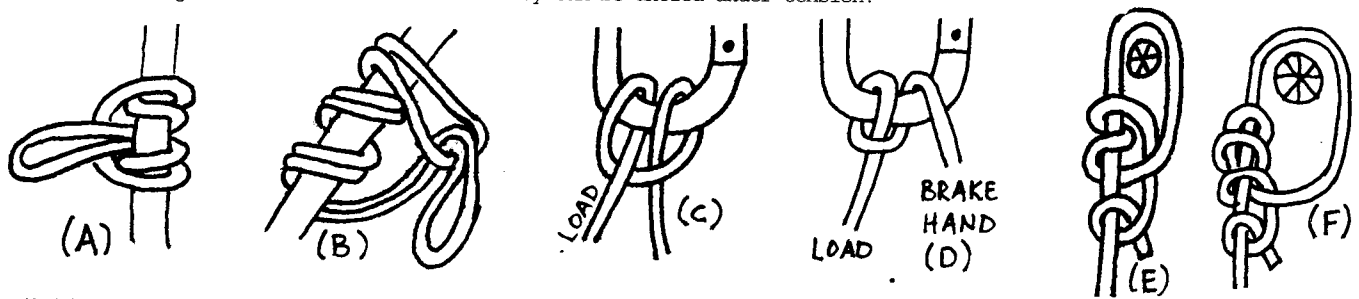
(A) BUTTERFLY - A midline loop that can be loaded in any direction. (B) OVERHAND BEND - aka Water knot, Ring bend. The knot for flat material. Leave 3" tails and pre-load before using.

**BENDS** - The 3 best BENDS for bending ropes together.

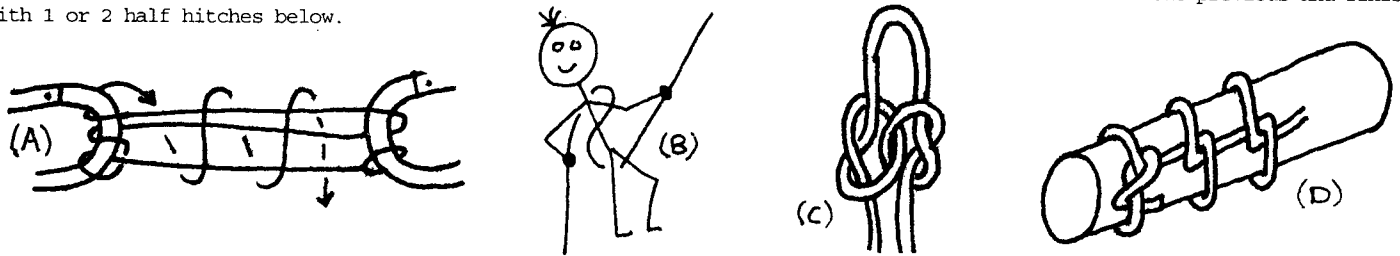


(A) Grapevine Bend - Low profile, difficult to untie after loading. Common rappel rope bend. Aka Double Fisherman's. (B) Ashley Bend - from the master, The Ashley Book of Knots. (C) Rigger's Bend - not a Hunter's. Easy to untie.

HITCHES - Constricting hitches and those used so they can be untied under tension.



(A) Prusik hitch - The connection in a Z-drag; the way to ascend ropes before mechanical ascenders. Usually will slip at 1800 pounds, depends. Use 6 or 7 mm prusiks on 7/16" rope, 7 or 8 mm on 1/2" rope. Sometimes take a third turn through for added friction = 3 loop Prusik. (B) Klemheist - Works with 1/2 - 1" webbing. As with the Prusik, more wraps is more friction. (C) Clove hitch - quick adjustment, will likely slip at 1000 pounds. Important to have load line on spine side of biner. (D) Munter hitch - for belaying and rappelling. Use only with large, locking biner. (E) Tautline hitch - basic, adjustable. (F) Rolling hitch - more secure than the Tautline. Tie 3 half hitches, each next one to the outside of the previous and finish with 1 or 2 half hitches below.



(A) LOAD RELEASING hitch - to release a tensioned system quickly; sometimes helpful resetting the systems; this and a Klemheist will get the weight of a fallen climber off your belay rope. (B) DULFURSITZ, the body rappel - basic really, pad the right places. Very useful in canyoneering. (C) TRUE LOVERS'S Knot - elegant. Caution - the false lover's knot is just as easy to tie. (D) Marling hitching - more secure than half hitching.

RESCUE STRATEGIES- preplan, thinking ahead, plan, spacing, timing, kit...

Boat based rescues- position and timing of boats-takes good rowing skills. Never let a swimmer pass the downstream boat.

Rope based rescues- thrown ropes are not a panacea and in some places can add to the problem. A swimmer needs only one rope (not 4 or 9) thrown at him at a time. Dispense only the amt. of rope needed- to prevent entanglement. Never tie off a thrown rope. Belay it and make sure the belayer is stable. For coiled ropes, throw half the coil, let the other half feed off your other hand. Load considerations: 1) boat and person in same current = min. load. 2) boat and person in different currents = some to lots of load. 3) shore to person in current = max. loads. Props and ropes don't mix.

SWIMMING- If you can swim aggressively, act like a kayak. Float shallow water feet first but dangle sideways in big waves.

FLIPLINES: Rig them at the put-in, period. Larger rafts need 2 even 3 so all the necessary people can fit. Fishing for a bow line to use as a flipline takes too much time.

PULL PEOPLE INTO BOATS by grabbing the lifejacket, not their arms. Many techniques, learn them all.

KITS - Skills, experience and attitude, the ability to read water and the adjacent landscape, good judgement (which comes from bad judgement), helmet and PFD are all part of your kit. OWN YOUR OWN kit so it has a known history. Inspect it and keep it dry. Tools on your PFD are job/craft dependent and a hazard to self-safety. Evaluate this. Kit size is proportional to trip size: 2 kayaks, 2 motor rigs, 16' boats and 18' boats all need different kits. Kit placement- you may want to standardize this across the trip; can you get to it if the boat is over? It doesn't take much stuff to do a lot of work: Fliplines, throw bag, long rope, 2 prusiks, 2 pulleys and 2 large, locking biners can do A LOT. But, only if you practice. CARE FOR YOUR TOOLS.

-----write important telephone numbers, radio freqs., and notes below -----

READ: professionals read, professionals practice.

- \* All the Risk Management stuff from your company.
- \* RIVER RESCUE- Bechdel/Ray
- \* KNOTS FOR CLIMBERS- Leubben
- \* WILDERNESS SEARCH AND RESCUE- Setnicka
- \* TAO OF LEADERSHIP- Heider
- \* TRACKER- Brown, Jr.

One final sheesh: silt happens.

FAIR WARNING- This document could lead you, by your own decisions, into big trouble. Seek instruction. Find an experienced mentor. When in doubt, believe it. By Bego, Barry Miller and Rachel Schmidt. Comments to Bego, Box 255, Moab, UT, 84532

>>> THE SEASONS OF APPRENTICESHIP, THE ACQUISITION OF TECHNIQUE, THE PASSING DOWN OF KNOWLEDGE <<<

# Where the Hell Am I?

by John Weisheit

Note: The numbers I use for Cataract Canyon rapids in this text are based on the 1921 USGS maps.

Once upon a summer evening, I was camped at Rapid #5, which means it was crowded that particular day in Cataract Canyon, as it is not my favorite place to be on a hot sunny day. A private comes into camp during the social hour and informs me that I am parked in his designated camp. I pleasantly asked him what he signed up for at the register box above Spanish Bottom. He pleasantly informed me that he registered for the camp called Lower #5. I explained to him that Lower #5 was downstream about 1/4 a mile on the right and I was in Upper #5. He said, "But this camp is below Rapid #5". Thinking to myself -- *this makes sense* -- I explained that the designation has nothing to do with whether the camp is above or below Rapid #5; there are two designated camps for Rapid #5, an upper and a lower. I am in the upper and you belong in the lower, which is downstream. "Thank you" ... "Your welcome." Fortunately, no one was camped at Lower #5, otherwise this particular encounter could have soured into another private/commercial grovel.

Was I correct in my assessment of Rapid #5 camps in Cataract Canyon? Yes -- this time anyway -- for I confess past mistakes in similar encounters. In fact, the embarrassment has inspired me never again to -- insert foot into mouth. Throughout river running history, almost every river runner gets confused during the course of their first few trips through Cataract Canyon. I call this syndrome: "Confused in Cataract Canyon". This phenomenon is well documented for my theme.

## Powell Expedition - 1869

Powell Report, July 21: *We start this morning on the Colorado ... two hard portages ... the Emma Dean is swamped ... in the first quiet water below she is righted ... three oars are lost ... the larger boats land above the dangerous place ... we camp at night on the rocks on the left bank ... no driftwood along the banks.*

Where are they? Popular opinion says Rapid #5.

Problem: lots of driftwood where the big boats are supposedly parked "above the dangerous place".

Theory: don't trust Powell's Report.

Solution: read diaries of Powell, Bradley and Sumner as published in John Cooley's book The Great Unknown.

Bradley, July 21: *... made 8 1/2 miles today ... rapids commenced about 2 miles from junction ... start four portages ... sleeping ground by piling up rocks ... made two portages within 100 yds. above and there is another waiting not a hundred yds. below ... a trail had to be made over rocks ...*

According to modern maps, a distance of 8 1/2 miles from The Confluence would put their camp just below Rapid #10, where there are only riffles and small beaches. Let's suppose they are camped above Rapid #10 in Tilted Park and the Emma Dean capsized in #10, which could happen in July's

low water.

Problem: There are driftwood piles on the left bank and an eddy with a shaded cottonwood camp.

Afterthought: Bradley says they did a total of four portages before making camp. It would be reasonable for the crew to portage #1 and #2. In low, medium, or high flows, #3 is not a rapid that requires portaging. If they portaged #4 and #5, this still puts them below #5 anyway.

Sumner, July 21: *... commenced the real work of exploration [classic statement] ... smooth channel for 5 miles ... came to a very bad rapid, but ran it all right ... came to a worse one 200 yards below ... made 8 1/2 miles, four portages ... swamped the small boat and lost oars ... camped on south side among the rocks.*

Statement: They are definitely below #5.

Powell diary, July 21: *Came down river 8 1/4 miles. Bad rapids. 3 portages. Lost 3 oars ... the floodplain is 18 to 20 ft. higher than river is now ... camped among rocks on the left bank. No. 11.*

Statement: All three men agree to completing at least 8 miles from The Confluence that day, that they are camped in the rocks on the left side above a rapid that capsized the Emma Dean, and oars are to be fashioned from natural resources, where none are to be found. They are definitely above Tilted Park because there are camps and driftwood there.

Theory: They are camped between the top of #6 and the top of #8. The left side of the river between these two points is without camps nor driftwood. However, if they were camped above #8, they could simply row across the plunge pool of #7 to the right shore where there are more reasonable camps and driftwood piles. Logically, the Emma Dean capsized in either #6 or #7. If this was my first trip into Cataract canyon in low water, my vote would be #6, because it is choked with boulders and harder to read. If so, their distance covered for the day was 7 miles.

Question: Can boats pull to the left shore above #6? In my opinion, yes.

Problem: Rapids change.

Best conclusion: Contrary to popular opinion, Powell did not capsize in #5; possibly flipped in #6, and maybe #7. I think they portaged #1, #2, and definitely #5.

Afterthought: It is possible that they portaged #4. There is a record by Bert Loper about #4 being a bad rapid. It is possible that Bert confused #4 with #5 because he also mentions camping on the right side of this particular rapid. There is a small beach on the right side of lower #4, but it is not a desirable camp as is what is now called upper #5. Also of interest, the USGS recently found a hackberry tree at #4 that is almost two hundred years old. Also, in 1993, a large rock in #4 has rolled over. Perhaps this rapid has changed since Powell's day.

## Brown Expedition (DCC & PRR) - 1889

The most interesting thing about the Frank M. Brown trip is that it was done at a flow over 60,000 cfs. For Brown, the success rate for traversing Cataract Canyon was very poor. Brown's fleet left Cataract Canyon minus two

boats. Becoming lost in Cataract at flows above 60,000 cfs is assured. However, Brown and his crew were surveying the canyon for a railroad bed and notes by his chief engineer, Robert B. Stanton, are a reliable reference guide for concluding their exact location.

June 4: ... In Rapid No. 10 ... line our cook boat the Brown Betty ... caught on rock under water ... tried every way to save the boat but she broke up and was a total loss ... went into Camp. 10 just 3000 feet beyond Camp No. 9.

The station number at Camp No. 9 is noted in Stanton's diary as #8828. At The Confluence, Stanton's survey tied into Frank Kendrick's survey line, which was completed from Grand Junction to The Confluence one month previous. Kendrick's station number was chiseled onto a large boulder at The Confluence and reads: 8489 + 50. Each station was marked at intervals of 100 feet. So, 8489 x 100 + 50 = 848950 feet, or 160.78 miles, which is Kendrick's estimated mileage from Grand Junction to The Confluence and remarkably accurate.

Brown's Camp No. 10 was at Station 8828 + 3000 which would be Mile 167.76 or 6.98 miles downstream of The Confluence.

Surprise: The Brown Betty was destroyed while lining Rapid #6. Brown's Camp No. 9 was probably what we now call camp Lower #5, which is approximately 3000 feet upstream of Rapid #6, which makes sense to me because it is the only reasonable high water camp in the vicinity.

Problem: Yes, for Brown and crew. Camp No. 10 was no picnic.

Conclusion: Brown lost the cook boat at Rapid #6 not #10.

#### The Best Expedition - 1891

This expedition was not lost in Cataract Canyon -- they only lost one of two boats. [see article in The Confluence, Volume 1, Issue 2].

*William Hiram Edwards, July 21: In No. 13 rapid -- the rapids of Cataract Canyon are rock rapids, caused by the wash from the side canyon that comes in and washes the boulders and rocks out into the river ...*

Statement: Edwards is absolutely correct. Range Canyon is the side canyon whose outwash forms the rapids of "Mile Long", which starts at Rapid #13. The loss of boat #1 occurred at Rapid #15.

#### George Flavell - 1896

September 30: ... after running eight rapids in succession, we camped ...

Statement: I think Flavell is camped in Tilted Park, 8 miles below The Confluence, which means he has done nine rapids.

October 1: ... in coming through shout, "Whoops! Aha! ... progress made: 6 miles.

October 2: [Layover]

October 3 ... made about 12 miles, running 18 rapids.

October 4 ... Cataract, with its 73 rapids (though 25 are not worthy of the name) ... progress made: 20 miles.

Comment: Flavell's estimated mileage is 46 miles. If you deduct the 25 rapids he considered unworthy from the 73, you have 48 rapids. The official USGS mileage is 39 and the official rapid count is 49. Very impressive diary keeping for Mr. Flavell!

#### Julius Stone Expedition - 1909

Stone's record is quite accurate. It was a low water trip in October. Stone mentions lining Rapid #6, but I think it was Rapid #5 because they had lunch afterwards at a "ledge of calcite on the left bank", which is between Rapid #5 and Rapid #6. Seymour Dubendorff flipped in Rapid #18, which is a common outcome in levels above 20,000 cfs; this is where the "Button Hole" is located. It was recorded that he was doing a left run in #18 and hit a rock, got turned around, hit another rock, and then flipped. This is very plausible thing to do in Rapid #18. But the next entry pinpoints the Dubendorff's event occurring definitively in #18: "We run ... Number Nineteen then come to a bad one which is divided by a rocky island." True to Stone's words, Rapid #20 is divided by a rock island; a place we call "Been Hurt", but that is another story.

#### Emery and Ellsworth Kolb - 1911

The Kolb Brothers left an inscription on the wall above the talus slope between Rapids #22 and #23. They used white paint from a can that was left behind by the Stone Expedition. The Kolb's had a layover here on October 28th and 29th. I had a problem with this in my first years as a Cataract boatman, because I never saw a camping beach here worthy of a layover. After the high water of 1993, a gorgeous beach appeared between Rapids #22 and #23.

#### Clyde Eddy Expedition - 1927

When Eddy went through Cataract Canyon the flow was 54,000 cfs. Eddy, bless his heart, was probably confused because he read too many books about low water trips.

*All the men walked down with me and looked at No.5, and every one of them appreciated its dangers. Few rocks were showing on account of the height of the water but there were many giant waves, such as I had never seen before except in the gorge below Niagara.*

Rapid #5 is a low water rapid worthy of respect. However, in high water it is washed out and does not fit the above description. I think Eddy and his men were scouting Rapid #7, which at flows of 54,000 would better remind one of the rapids below Niagara Falls. In the spring run-off of 1993, I encountered these waves for the first time and found them to give the best whitewater ride I have ever experienced on the Colorado River. A certain "old man" I know said Mile Long in the 100,000 cfs range is the best ride.

#### Nevills - 1938 and 1940

Incidents beyond Norman Nevills control made his Cataract Canyon trip with Elzada Clover and Lois Jotter a



harrowing experience, but again that is another story. Nevills became more cautious as a result and spent a night deciding whether to line Mile Long Rapids or not. According to a recently published biography, said references considered Rapid #11 to be the start of Mile Long Rapid. As we have already discussed, Mile Long begins with Rapid #13. But, this incident opens a point more worthy of my discussion. Rapid #11 is the most curious rapid in Cataract Canyon. Actually, it is best described as a vortex. This rapid is not caused by a debris flow from a tributary canyon; there is no boulder outwash associated with this locality. However, there is a high water plunge pool above Rapid #11 and ejected gravels have formed a large bar that converges the eddy flow into the mainstream.

Rapid #12 is caused by a debris flow and the plunge pool behind #12 is the deepest in Cataract Canyon, which is 80 feet. The area between #12 and #13 is referred to as "Lake Cataract". About a half mile above #13, there is a place worthy of having a rapid number, but for some reason the USGS did not designate one, despite a tributary canyon on river right. Perhaps it is a new rapid. If not, I don't fully understand why the USGS designated #11 as a rapid and ignored what I call Rapid #12 1/2.

In 1940, Barry Goldwater completed a trip with Nevills. In Goldwater's book, he describes an incident occurring at Rapid #24, but it really happened at Rapid #23, and there is an inscription there to document this locality. The inscription reads in such a way as to indicate a capsized. But this is only half of the story. A boat called the WEN became pinned on a rock while attempting a low water run through "Satan's Gut" (recently proclaimed the "Leap of Faith"). Such an incident happens a lot to this day. It took almost three hours to free the boat which immediately capsized once freed from its rocky perch.

#### Cataract Canyon - "The Graveyard of the Colorado"

I am not sure how this quote became associated with Cataract Canyon. It is my opinion that it's origin started with the placer miner's of Glen Canyon and spread through the river community via Bert Loper. In 1969, river runner and historian P.T. Reilly published an article for the Utah Historical Quarterly entitled How Deadly is Big Red. By Reilly's count, more people have died in the Grand Canyon than in Cataract Canyon. To my knowledge, at least nine Cataract Canyon deaths can be added to this unfortunate count. Big Drop II was the common denominator for four individuals in 1993.

"A nasty place," is how many boatmen describe Big Drop II at flows above 60,000 cfs. The USGS estimated "The Wall" to be 25 feet high, which is a wave that explodes upon itself every five seconds. The Wall only shows its beastly face every 10 years or so and I'll leave it to the reader to decide whether this is good or bad. For 1993, the National Park Service calculated the success rate for rowing rigs in Big Drop II above 60,000 cfs to be 20%. Even at flows of 30,000 cfs, more flips per hour occur in BD II than any other rapid in Cataract Canyon. In 1991, in a period of one

hour, gathering crowds witnessed five boats flipping in BD II. But what does this have to do with my article about Cataract Canyon confusion? Popular opinion has it that Big Drop III, or Satan's Gut, is one of the 10 biggest drops in the United States. Please don't succumb to the Cataract Canyon Confusion Syndrome, better known as "Where the Hell am I?"

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#### From The Nuclear Regulatory Commission

Over the past several months, the Nuclear Regulatory Commission has received many requests for a copy of the Draft Environmental Impact Statement (DEIS), which is in preparation on the Atlas Corporation's (Atlas') onsite reclamation plan for the Moab, Utah uranium mill. The schedule for publication of the DEIS has changed over time. At present, we plan to publish the DEIS for comment on the same schedule as that for the Technical Evaluation Report (TER). The TER provides documentation for compliance of the reclamation plan with the Criteria in Appendix A to 10 CFR Part 40. The DEIS contains references to the TER for discussion of technical details which support the references to the TER for discussion of technical details which support the environmental evaluation. Providing the two documents for comment on the same schedule will supply the maximum amount of information for the thorough review.

We expect the assessments to be published and available for comment by the end of the summer of 1995. The extended schedule is necessary to acquire additional data which has been requested of Atlas. This information is in the form of additional Colorado River sediment and water analyses, a more in-depth analysis for effects of potential seismic events, a determination of the capability of Moab fault which may underlie the disposal site, and an assessment of the potential of the Colorado River to encroach on the disposal site through normal river erosion. Atlas is still in the process of developing the requested data.

This is an interim report on the status of the project. You will receive copies of the DEIS and draft TER for comment when they are published. Any comments or questions should be addressed to me at (301) 415-6693.

Sincerely, Allan T. Mullins

Project Manager  
Uranium Recovery Projects Section  
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## THE SOUTHWESTERN WILLOW FLYCATCHER

by Damian Fagan

In February of 1995 the southwestern willow flycatcher (Empidonax traillii extimus) was designated as an Endangered Species by the United States Fish and Wildlife Service (USFWS). Population declines, habitat loss and brood parasitism by brown-headed cowbirds were the reasons why this small flycatcher was added to the list. Estimates list the population at only 300 to 500 breeding pairs, but as further inventories for breeding pairs are completed this number could increase.

The five Empidonax species that are found in southern Utah are best distinguished during the breeding season by habitat, habits and territorial song. This genus of flycatchers represents one of the most difficult groups of birds to identify in the field. Little gray birds (tinged with olive, gray or yellow) with eye rings and wing bars; subtle characteristics, that may be more pronounced within a species than between species, does not make the task easier. Look for field marks as: bill shape, color pattern of the lower mandible, shape of the wing tip, presence/absence of an eye ring, shape and location of nest, song, and habitat. The songs of the different species are perhaps the best field mark with the southwestern willow flycatcher's fitz-bew or fitz-be-yew being distinct. The call note is a sharp whit!

The southwestern willow flycatcher is one of four subspecies of the willow flycatcher. A small (5.75 inches) bird in length, the best field marks, other than the song, are : grayish-green to olive-brown back and wings, pale yellowish belly, white throat, two faint wing bars, an often indistinct eye-ring, a long primary extension and a wide bill with a contrasting pale lower mandible. Sexes are similar in plumage. When perched the bird often flicks its tail upwards.

The southwestern willow flycatcher's breeding range includes southern California, Arizona, southern portions of Nevada and Utah, New Mexico and western Texas. A riparian obligate neotropical migrant, (meaning it needs riparian areas to breed and that it winters in the New World Tropics) this bird occurs usually below 7000' along rivers, streams or other wetlands where dense growth of willows (hence its name), tamarisk, seep-willow or other shrubs, where a scattered overstory of cottonwood exist. This species has been known to nest in tamarisk (Grand Canyon) and russian olive plants, although the invasion of tamarisk may be one reason for the species decline. Several theories describe how tamarisk does not provide the thermal protection that native broadleaf species do, that the tamarisk invasion changed the insect fauna upon which the flycatcher feeds or that the wispy foliage made the flycatcher nests more readily visible and thus parasitized by the cowbirds.

The willow flycatcher is a late spring breeder. Typically males arrive upon the breeding grounds a week before the females do. Pair bonding and the initiation of nesting usually begins one week after the females arrive.

The constructed nest is a compact cup of fiber, bark and grass, with feathers on the rim and lined with grasses or other fine material inside. Often there is plant material dangling from the bottom of the nest that resembles a man's scruffy beard. The nest tends to be placed in a fork or horizontal branch, 1-4.5 m above the ground in a medium sized bush or small tree.

The nesting cycle averages 28.5 days. Three or four buff colored eggs with spots are laid at one day intervals. Incubation begins when the clutch is complete and the birds have been known to re-lay a clutch. Eggs are laid in late May or early June and the young fledge in early July or August. Individuals depart the breeding grounds near the end of August. Their wintering range is from Mexico to Panama.

The birds hunt by launching themselves from an exposed perch and catching insects in the air or possibly on the ground "flycatching". This aerial show may include some dramatic acrobatics as the birds chase their prey. Once the bird has captured a prey item it then flies back to a perch to eat.

Cowbird parasitism, where a female cowbird lays an egg(s) in the nest of a willow flycatcher, is one of the reasons listed for the subspecies decline. The cowbird young develop quicker and are larger than their nest mates so they can better compete for attention from the feeding adults. The hosts' species own reproduction is either reduced or eliminated by this parasitism. Measures to control cowbirds are being implemented in areas where the flycatchers have been known to breed.

Habitat loss due to urbanization, recreational and agricultural development, water diversion and impoundments, livestock grazing, off-road vehicle use and other recreational and hydrological changes, are other reasons for the species decline. Changes in the species composition and vegetational structure of the plant community have fragmented the habitat. This facilitates brood parasitism by the cowbird and reduces the vegetational protection of breeding sites.

Within southeastern Utah few studies have been initiated to survey for this bird. During some riparian breeding bird monitoring counts in Canyonlands National Park in 1993, three southwestern willow flycatchers were observed and their songs recorded for positive identification. The willow flycatcher's also sing on their migration, not just on their breeding grounds, and it was not determined whether these birds nested in the area.

It is difficult to predict the future for this subspecies. Certain land practices in riparian habitats will have to change dramatically to protect and enhance suitable nesting and foraging areas for these birds. Cowbird control may have to be implemented to help increase reproduction rates at nesting sites. The impacts of grazing on willow flycatchers has been well documented. Changes in grazing regimes and locations, recreational activities in riparian zones and water impoundments will represent some strong issues in the future for this species' survival.

References:

Brown, B.T. 1988. Breeding ecology of a Willow Flycatcher population in Grand Canyon, AZ. *Western Birds* 19 (1):25-33.

Craig, D., R. Schlorff, B. Valentine, and C. Pelles. 1992. Draft survey protocol for willow flycatchers (*Empidonax traillii*) on National Forest Service lands in the Pacific Southwest Region. USDA Forest Service. 13 pp.

Fagan, D. 1993. Avian population monitoring in riparian habitats within National Parks of the Southeast Utah Group. Final Rep. 28 pp.

Harris, J.H., S.D. Sanders, and M.A. Flett. 1987. The status and distribution of the willow flycatcher (*Empidonax traillii*) in the Sierra Nevada. California Department of Fish and Game, Wildlife Management Branch Administrative Report 87-2.

Harris, J.H. 1991. Effects of brood parasitism by brown-headed cowbirds on willow flycatcher nesting success along the Kern River, California. *Western Birds* 22 (1):13-26.

Hunter, W.C., R.D. Omhart, and B.W. Anderson. 1987. Status of breeding riparian-obligate birds in southwestern riverine systems. *Western Birds* 18:10-18.

Sedgewick, J.A. and F.L. Knopf. 1992. Describing willow flycatcher habitats: scale perspectives and gender differences. *Condor* 94:720-733.

Taylor, D.M. and C.D. Littlefield. 1986. Willow flycatcher and yellow warbler response to cattle grazing. *American Birds* 40:1169-1173.

Tibbits, T. J., M.K. Sogge, and S.J. Sferra. 1994. A survey protocol for the southwestern willow flycatcher (*Empidonax traillii* *extimus*). Tech. Report NPS/NAUCPRS/NRTR-94-04. 20 pp.

U.S. Fish and Wildlife Service. 1993. Proposal to list the southwestern willow flycatcher as an endangered species and to designate critical habitat. July 23, 1993, Federal Register 58:39495-39522.

Beware of Marmots, Muskrats and  
Other Things with Whiskers

by Mark Sundeen

A recent development has blighted Moab's fragile natural environment and violated the trust and cooperation that hold this community together. It has mocked the rights and values held dear by each citizen and, indeed, by every living thing that makes its home in canyon country. What makes this situation so much the more odious is the tacit ease with which it slipped through the gaze of our economic, ethical and environmental watchdogs. While voices were raised in protest against the rim-top tram, missile testing and the removal of Round Mountain, the project of which I speak, received nary an opposing whisper.

The aberration in question is the construction of a dam in the left fork of Mill Creek Canyon. As is the case with much of the growth that has afflicted Moab of late, the responsible parties for this project are special interest speculators run amok in a frenzy of desire and development. These beasts have flooded and effectively destroyed what was once a paradise for jeepers, hikers, swimmers and cows. Their slavish pursuit of progress reveals not an iota of concern for any species on this planet other than themselves. They have proven themselves nothing more than rodents, gnawing away at Mother Nature with chisel-like teeth, slapping their tails with glee as they reap the profit of their exploitation. For those of you who still do not recognize the enemy, let me describe him further. He stands 32 to 47 inches; he is equipped with soft, brown fur and webbed hind feet; he is equally at home in the water, on land or in his pernicious little dams. To the scientist he is *Rodentis castoris*, to the layman he is beaver.

The busy beaver indeed. Having for generations worn the deceptive pelt of God's most industrious os critters, the beavers in this community must now stand naked in the glare of their own greed, ambition and outright larceny. Industrious, they say? Industrial is more accurate. These overgrown rats are nothing other than the captains of industry in the animal kingdom, and thus, they should be regarded with the contempt and mistrust that we normally reserve for the overgrown rats who call themselves the captains of industry of the human kingdom.

Don't get me wrong; I'm no environmentalist. I believe that nature was put on the earth to serve man. For precisely this reason I was saddened and appalled last week when I drove to the confluence of the left hand and the right hand of Mill Creek. The entire mouth of the left fork is no longer the bubbling brook across which I rode my ATV and down which I floated in an inner tube. It has been transformed in several short months into a stagnating reservoir; too shallow to swim and too deep to drive. And what does this pond provide? The claim-jumping beavers will list habitat, shelter, protection from floods, and good fishing grounds as justifications for their vile levee.

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## Guide Training Programs

Colorado Plateau River Guides does not have a Guides Training Seminar (GTS) implemented at this time because such a program was installed by Canyonlands Field Institute in 1994; a program the board members of CPRG endorse. Canyonlands Field Institute currently has guide training courses planned for the Spring of 1995. Please refer to the schedule of CFI events as published in The Confluence, Volume I, Issue Four, or call CFI at (801) 259-7750.

In the future, it may become necessary to implement a traveling GTS to include the guides who live outside of Moab. We will try to work on this concept in the coming seasons and would appreciate your suggestions on this matter.

In the meantime, here in Moab we are working in cooperation with the following institutions: The Dan O'Laurie Museum, Canyonlands Natural History Association, The Moab Information Center, Canyonlands Field Institute and the National Park Service. Together we have created a lecture series to help us become better acquainted with the natural history of the Colorado Plateau. All lectures are free and open to the general public.

### Schedule of Lectures

**James Aton, March 16th, 7:00 p.m.** at the Moab Information Center, Main and Center Streets, Moab, Utah. The theme of Dr. Aton's discourse will be: "Inventing John Wesley Powell: The Major, His Admirers and Cash-Register Dams in the Colorado River Basin".

**John Weisheit, April 8, 7:00 p.m.** at the Moab Information Center, Main and Center Streets, Moab, Utah. The theme of John's talk will be Westwater Canyon; a slide show highlighting Westwater Canyon's geology, ecology and human history.

**Marjorie Chan, April 19, 7:00 p.m.** at the Moab Information Center, Main and Center Streets, Moab, Utah. Dr. Chan is a geologist from the University of Utah and will be discussing mysteries of the Canyonlands sub-province.

**Roy Webb, May 8, 8:00 p.m.** at the Moab Information Center, Main and Center Streets, Moab, Utah. Mr. Webb is on the staff of the Marriott Library, University of Utah. Mr. Webb will be discussing Green River history.

**Lloyd Pierson, May 13, 8:00 p.m.** at the Moab Information Center, Main and Center Streets, Moab, Utah. Mr. Pierson is an archeologist and will be discussing the Civilian Conservation Corps and the Japanese Isolation Center at Dalton Wells, adjacent to Arches National Park.

**Dr. Kruger, May 18, 8:00 p.m.** at the Moab Information Center, Main and Center Streets, Moab, Utah. Dr. Kruger is from the University of Utah and will be discussing climatic features of the Colorado Plateau.

More talks are scheduled during the second week of May in accordance with Utah's Pre-History Week sponsored by the National Park Service.

The day, place or time for some of these lectures may change due to unforeseen circumstances. Please call the Moab Information Center at (801) 259-2468 for updated information. More talks are scheduled for the year and we will try keeping you posted in forthcoming issues of The Confluence.

### "The Canyon's Edge"

The multi-media slide show produced by Canyonlands Field Institute called "The Canyon's Edge" can be viewed before some of the above scheduled talks at the Moab Information Center. Showings are as follows:

April 1 to April 30 - 5:00 and 6:00 p.m.

May 1 to May 28th - 5:00 and 7:00 p.m.

May 29 to October 1 - 7:00 and 8:00 p.m.

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### McPhee Reservoir EA by Tom Rice

It perplexes me to see the river flows of a major Western drainage discussed in flows of 31 to 78 cfs on the front and back side of the spring runoff, which can reach in excess of 2,500 cfs or more during "normal" years. One can run the Dolores River wild-eyed and adrenaline rich on a peak runoff day in May and then see the same river in a state where you would have a hard time finding a puddle to drown in on a hot August day.

Like any other arid Western river, late summer pre-dam flows at times were so low the creek dried up. The current problem plaguing the dam/human induced fish hatchery shines light upon the fact how water projects satisfy one problem only to create another problem. This unfortunately, is progress in today's time and the powers that be in the dam world sometimes lack foresight.

The deed of dam building has already been done. Therefore we have to work with what we have trying to improve the river's position using the tools at hand. Write a letter to John Freeman of BuRec, no later than March 31, 1995. You can also get a copy of the EA from the office. Read the EA or peruse this article again and send your comments. A short, simple letter will suffice. From an ecological standpoint, Alternative II is the most sound from my perspective. You make your decision.

Contact:

John Freeman

Bureau of Reclamation

P.O. Box 640

Durango, CO 81302

But when you cut through the rhetoric you will see the Mill Creek project for what it truly is: a residential subdivision.

Let me stress that my position to the Mill Creek dam is neither a dogmatic crusade against developers nor a vendetta against beavers and other furry creatures. I oppose the construction of this mammalian subdivision simply because it is in a place that has traditionally accommodated so many diverse groups. As I mentioned, the dam virtually prohibits motor vehicles accessing the swimming hole. As if it were not enough to drive over, around and through the BLM barriers, I now have to forge my quad-runner through a quarter-mile of marshlands.

And what about the tourist industry? Each spring dozens of whitewater enthusiasts journey from near and far to float inner tubes down the mighty Mill Creek. Where we once splashed through swift current and exhilarating rapids, we now trudge across a subaqueous prison barred by the gnawed limbs of felled cottonwoods. Envision the boater's malaise when he spies amphibious chipmunks frolicking on Lake Left Hand, and feel his woe when he learns that downstream water flow is now restricted and regulated by some flat-tailed bureaucrat mouthing twigs and grubs in his plush reclamation office.

There are more concerns still. The panel of Indian writings above the dam may soon be submerged. Access to this cultural resource will then be restricted to only those vandals who can afford diving masks and scuba tanks. The dam also violates the rights of the lawful permittee of Mill Creek -- the cows. Consider the unfortunate bovines who carelessly wander upstream only to be mired to the teats of Beaverton Marsh. How will we milk them?

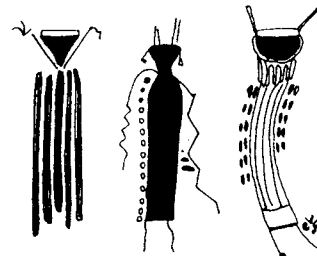
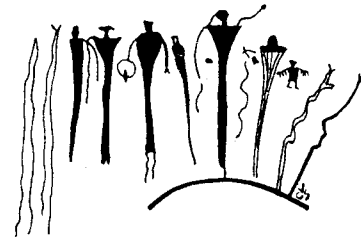
Lastly, I will concede that I am concerned about the environment. On account of the dam, flood cycles will be disrupted, food chains broken, and erosional patterns altered. These cousins of the common woodchuck threaten nothing less than a wholesale breakdown of the canyon's ecosystem.

Who issued the rodents a permit to build in the first place? If none was granted, then certainly local and federal law enforcers should have been able to stop a small colony of quadrupeds from implementing its wretched design. The citizens should also be ashamed. Where were the 4-wheeler clubs and the multiple-use advocates when these special interest beavers effectively closed off a popular recreation area? How did the Sierra Club allow pristine wilderness to be clear-cut in the name of civic expansion? Where was SUWA when a precious riparian eco-zone was drowned in its own blood, its tender throat slashed by the rabid incisors of web-footed industrialists?

Finger pointing at the various players is, of course, secondary to the finger pointed at the culprits. Be it known that not a single member of the varmint community had waddled forward to compromise or even communicate with humans on this issue. The beavers' petty quest for survival is not excuse enough for the havoc they have wrought. But

finally, I fault these rodents less for their disregard for other species than for their myopic and Promethean arrogance. Do they really think their rude collage of sticks and mud can stand the test of time? Perhaps they do not even realize that within a few short years their quaint little pond will fill with silt and its waters will pour over its ramshackle flood walls. And then what? Will they simply build the dam higher? An entire species, whiskered and furry, genuflects at the feet of a false god called Progress. They can build and build and build; inches, feet, miles; gnawing, maniacal, hysterical. Where will it stop?

O beaver! Why dost thou quarrel with Nature?



Artwork on page 17 and 19 is by Carol Van Steeter.

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